U.S. ARMY GARRISON MANNHEIM, GERMANY

SPILL PREVENTION AND RESPONSE PLAN (SPRP) AND SLUG PREVENTION PLAN

FINAL

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January 2005

APPROVALS

This Spill Prevention and Response Plan (SPRP) addresses spill prevention, control, and response specific to 293d Base Support Battalion (BSB) petroleum, oil, lubricant (POL) and hazardous substances (HS) use, generation, transport, storage, handling, and disposal.

This SPRP must be updated at least once every 5 years, or more frequently as information/data contained in the plan changes.

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USAG MANNHEIM SPILL PREVENTION AND RESPONSE PLAN

RECORD OF REVISIONS

The SPRP must be reviewed and updated at least every 5 years or when there are significant changes to operations in accordance with Section C18.3.1 of FGS Chapter 18, Spill Prevention and Response Planning. To fulfill this requirement, the following table is provided for tracking revisions to this plan.

Revision No.	Date	Name and Title	Signature	Changes	Pages Affected
1	Apr-05	Ulrike Martin, Env. Eng.		Incorporation of migration pathways into maps Alternate FIC added	Appendix 5 Appendix 8
2	Jul-05	Ulrike Martin, Env. Eng.		Spill Incident Reporting Form added	Appendix 3
3	Oct-06	Ulrike Martin, Env. Eng.		Change from 293d BSB to USAG Mannheim	Complete document
4	Jun-06	Ulrike Martin, Env. Eng.		Incorporation of outfalls and related drainage ares into maps Incorporation of regulatory changes based on IMA-E Spill Reporting Guidance Memorandum	Appendix 5 Section 4
5	Oct-06	Ulrike Martin, Env. Eng.		New cell phone numbers	Appendix 7 + 8
6					
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16					

TABLE OF CONTENTS

SECTION		PAGE NUMBER
ABBREVIATIONS AND ACRONYMS		**III**
FACT SHEET		**IV**
1	**INTRODUCTION**	**1-1**
1.1	Purpose	1-1
1.2	Applicability	1-1
1.3	Plan Distribution	1-2
1.4	Responsibilities	1-2
1.4.1	Facility Incident Commander (FIC)	1-2
1.4.2	Facility Response Team (FRT)	1-3
1.4.3	Other Responsibilities	1-3
2	**SPILL PREVENTION**	**2-1**
2.1	Spill Prevention Structures and Equipment	2-1
3	**SPILL CONTROL AND RESPONSE**	**3-1**
3.1	Incident Evaluation	3-1
3.2	Spill Assessment	3-1
3.2.1	Determine Safe Actions	3-2
3.2.2	Stopping Spills	3-2
3.3	Spill Cleanup	3-3
3.3.1	General Cleanup and Disposal Requirements	3-3
4	**SPILL NOTIFICATION AND REPORTING**	**4-1**
4.1	Points of Contact	4-1
4.2	Significant Spills	4-1
4.3	Notification Requirements	4-1
4.3.1	Notification Requirements for Spills Inside DoD Installations	4-2
4.3.2	Notification Requirements for Spills Outside DoD Installations	4-3
4.3.3	Further Notification Requirements	4-3
4.3.4	Spill Incident Reporting after Clean-up of a Spill	4-3
4.3.5	Non-DoD Resources	4-3
4.3.6	Involvement of Public Affairs	4-4
5	**RECORD-KEEPING**	**5-1**

TABLE OF CONTENTS

(continued)

SECTION		PAGE NUMBER
6	**TRAINING**	**6-1**
6.1	General	6-1
6.2	Training Requirements	6-1
7	**REFERENCES**	**7-1**

APPENDICES

Appendix 1	Standard Operating Procedures to Prevent POL and HS Spills
Appendix 2	Evacuation Plan
Appendix 3	Checklists and Forms for Inspection, Surveillance, and Spill Incident Reporting
Appendix 4	Spill Prevention and Response Deficiencies and Corrective Action
Appendix 5	SPRP Maps and Corresponding Information
Appendix 6	POL and HS Inventory and Spill Prevention Equipment Inventory
Appendix 7	Slug Prevention Plan
Appendix 8	Red Plan

LIST OF TABLES

Table 1-1 SPRP Regulatory Cross-Reference Matrix	1-6
Table 1-2 Locations of SPRP Copies	1-8
Table 4-1. Notification Requirements for Spills Inside DoD Installations	4-2

ABBREVIATIONS AND ACRONYMS

AAFES	Army and Air Force Exchange Service
AFN	American Forces Network
AIC	Assistant Installation Coordinator
ARCOM	Army Reserve Command
ARLOC	Area Location Code
ASF	HW container for liquids (“Abfall-Sammel-Behälter für flüssige Sonderabfälle“)
ASG	Area Support Group
ASP	HW container for solids (“Abfall-SammelBehälter für pastöse und feste Sonderabfälle“)
ASOS	Air Support Operations Squadron
AST	Aboveground Storage Tank
BASOPS-CST	US Army BASOPS Maintenance Center-Europe – Customer Service Team (former MCOE – Maintenance Center of Excellence)
BMO	Battalion Maintenance Office
Cd	Cadmium
CSF	Conforming Storage Facility
CSG	Civilian Support Group
DA	Department of the Army
DCA	Directorate of Community Activities
DoD	Department of Defense
DPW	Directorate of Public Works
DRMO	Defense Reutilization and Marketing Service
DYNCORP	DynCorp Technical Services
EMD	Environmental Management Division
EPAS	Environmental Performance Assessment System
EQCC	Environmental Quality Control Committee
EUD	Europe District, US Army Corps of Engineers
FFH	Flora, Fauna, Habitat
FGS	Final Governing Standards
FIC	Facility Incident Commander
FRT	Facility Response Team
Hg	Mercury
HHD	Headquarters and Headquarters Detachment
HQDA	Headquarters, Department of the Army
HM	Hazardous Material(s)
HMRC	Hazardous Material Reuse Center
HMSA	Hazardous Material Storage Area
HMSA – daily	HMSA for daily use quantities

ABBREVIATIONS AND ACRONYMS *(continued)*

HS	Hazardous Substance (includes hazardous material and hazardous waste)
HW	Hazardous Waste
HWAP	Hazardous Waste Accumulation Point
HWAP – daily	Satellite HWAP that is emptied daily to the HWAP
IMA-E	Installation Management Agency – Europe Region
INRMP	Integrated Natural Resources Management Plan
Li	Lithium
MA	Mannheim
MAM	Maintenance Activity Mannheim
MLC	Mannheim Laboratory Center
MP	Military Police
Mp	Motor pool
MWR	Morale, Welfare, and Recreation
NatSchG	Nature Conservation Act of Germany (“Naturschutzgesetz”)
Ni	Nickel
NSE	Network Services Center
OPMAS-E	Operation, Maintenance, and Supply Europe
O&M	Operation and Maintenance
PBO	Property Book Office
P.E.	Professional Engineer
POC	Point of Contact
POI	Point of isolation or recovery of the sewer system in case of a slug
POL	Petroleum, Oil, Lubricants
R.A.	Registered Architect
SS	Sanitary Sewer
SSSC	Self Service Supply Center
SW	Storm Water
TMP	Transportation Motor Pool
ECO	Environmental Compliance Officer
UMUC	University of Maryland University College
USAG	U.S. Army Garrison
USAGM	U.S. Army Garrison Mannheim
UST	Underground Storage Tank

SPILL PREVENTION AND RESPONSE PLAN

FACT SHEET

It is U.S. Department of Defense (DoD) policy to prevent spills of hazardous substances (HS) and petroleum, oil, and lubricants (POL) and to provide for a prompt, coordinated response to contain and clean up any releases. POL and HS spills can cause damage to the natural environment (such as soil or water contamination) and can affect human health, so the best way to avoid these problems is to prevent their occurrence.

The Spill Prevention and Response Plan (SPRP) documents the Garrison's strategies to prevent, control, and, if necessary, clean up spills of all POL and HS. The SPRP outlines spill response notification, personnel responsibilities, and procedures to rapidly respond to any spills of POL and HS.

IMMEDIATE RESPONSE ACTION

FOR A MINOR SPILL:

CLEAN IT UP IMMEDIATELY!

A minor spill does not: 1) enter or threaten waters, 2) exceed a reportable quantity, or 3) pose a safety or environmental threat.

FOR ALL OTHER SPILLS:

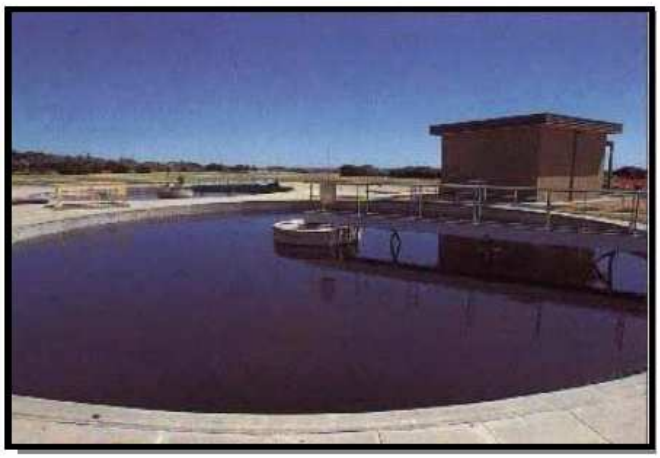
1. Report the Spill — On-Post and Off-Post, Call Facility Incident Commander (FIC) or POC of Facility Response Team

2. Determine Safe — Take safe, no-contact simple actions that may help victims, help threatened people, or stop or contain the spill.

3. Stop the Leak — Close valves, stop pumps, shut down power, move containers.

4. Control and Contain — Keep the spill from spreading. Close valves, use absorbents and portable containment.

SLUG PREVENTION PLAN



The SPRP also includes a Slug Prevention Plan, which identifies: 1. Areas where a batch (or "slug") POL or HS release may affect wastewater treatment plant operations; 2. Procedures to be followed after a slug release; and 3. Resources available to respond to a slug release.

1 INTRODUCTION

This Spill Prevention and Response Plan (SPRP) has been developed for the USAG Mannheim. The USAG Commander is responsible for the overall content and effectiveness of this plan. If the USAG Commander designates someone other than himself/herself to be responsible for this spill plan, he/she must be competent and qualified.

1.1 PURPOSE

The SPRP satisfies the requirement to develop and implement a spill prevention and response plan contained in German FGS Section 18.3.1, *Plan Requirements*. Each of the components of this SPRP corresponds to German FGS requirements, as documented in Table 1-1.

1.1.1 Slug Prevention Plan

Appendix 7 has been prepared to satisfy the requirement to develop a Slug Prevention Plan.

1.1.2 Hazardous Waste Contingency Plan

This SPRP contains all the information for a Hazardous Waste (HW) Contingency Plan in accordance with FGS Section 18.3.3 and Section 6.3.6. The following sections of this SPRP comprise the HW Contingency Plan:

- Section 1.4 Responsibilities
- Section 3 Spill Control and Response
- Section 4.3.6 Involvement of Public Affairs
- Section 6.2 Training Requirements
- Appendix 6 (POL and HS Inventory and Spill Prevention Equipment Inventory)
- Appendix-8 (Red Plan)

The Red Plan (Appendix-8) and Appendix-6 (POL and HS Inventory and Spill Prevention Equipment Inventory) can be used as the portions of the HW Contingency Plan that are pertinent to HWAP ‘facilities and operations’ per FGS Section 6.3.6.2.1.

The SPRP including the HW Contingency Plan is available in both English and German.

1.2 APPLICABILITY

This SPRP applies to all installations, facilities, units, activities, and organizations associated with the USAG Mannheim that use, generate, transport, store, handle, or dispose of POL and/or HS. This plan is applicable to any USAG activities involving POL and/or HS whether these activities are on or off the USAG Mannheim installations. Off-installation activities include any operations outside the USAG or installation boundaries or on property not under U.S. control, such as off-post training activities and maneuvers. In addition, this document is applicable to the activities of

other organizations or units outside of the USAG Mannheim that use training areas on or otherwise operate within the USAG Mannheim area of responsibility.

This SPRP is applicable to all installations of the USAG Mannheim where HS are stored or handled. These installations are listed below.

- Benjamin Franklin Village (GE07P)
- Coleman Barracks (GE140)
- Dannenfels Communication Site (GE15F)
- Friedrichsfeld QM Service Center (GE27S)
- Funari Barracks (GE28T)
- Grünstadt AAFES Facilities (GE32H)
- Lampertheim Training Area (GE478)
- Mannheim Class III Point (GE52F)
- Spinelli Barracks (GE79R)
- Sullivan Barracks (GE82J)
- Taylor Barracks (GE83C)
- Turley Barracks (GE856)

No HS is stored or handled at the following installations of the USAG Mannheim:

- Edigheim Beacon Site (GE19D)
- Friedrichsfeld Storage Area (GE27T)
- Grünstadt Communication Site (GE32F)

1.3 PLAN DISTRIBUTION

The Red Plan (Appendix 8) has been copied and placed at all smaller facilities where POL and/or HS are stored, for quick reference during spill incidents.

1.4 RESPONSIBILITIES

Responsibilities of USAG personnel for spill control and response are listed below:

1.4.1 Facility Incident Commander (FIC)

The FIC coordinates and directs DoD control and cleanup efforts at the scene of a POL or HS spill due to DoD activities on or near the installation. The responsibilities of this official include:

- Establishing the Facility Response Team (FRT).
- Directing DoD control and cleanup efforts at the scene of a POL or HS spill due to DoD activities on or near the installation.
- Mobilizing the FRT immediately after a spill is reported.

- Coordinating with the FRT to accomplish any spill response actions as effectively as possible.
- Directing the cleanup of the stabilized spill material or any residual contamination of soil, water, or equipment.
- Determining of the point at which an emergency no longer exists.
- Providing a written report to the appropriate In-Theater Component Commander and/or Defense Agency and the executive agent and submitting a follow-up written report when:
    - The spill is uncontained,
    - The spill is significant.

1.4.2 Facility Response Team (FRT)

Responsibilities of the FRT include:

- Providing personnel and equipment for emergency situations and significant spills.
- Responding to a spill incident and being responsible for control of the spill and its cleanup.
- Ensuring proper disposal of spill residue of minor spills.
- Maintaining training appropriate to response levels.
- Maintaining an emergency plan that includes information on the nearest German Fire Departments with spill response capability, units, and facilities of German disaster protection services, and U.S. or German agencies or individuals whose expertise or advice may be helpful.
- Designated by the FIC.

In case of a spill, the Fire & Emergency Division responds first and then contacts other members of the FRT if necessary.

Members of the FRT include:

- Fire & Emergency Services Division
- DPW, Director of Public Works and Deputy Director
- DPW, Environmental Management Division
- DPW, Operations & Maintenance Division (e.g. Sewage Shop, Roads & Ground, etc.)
- Other resources according to need (Public Affairs Office, Engineering Resources Management Division, Engineering Plans & Services Division, Range Control, etc.)

1.4.3 Other Responsibilities

USAG personnel with key spill prevention responsibilities are listed below:

1.4.3.1 Responsibilities at the DPW

USAG Mannheim Spill Coordinator

The Spill Coordinators at the DPW EMD and the Fire & Emergency Services Division are primarily responsible for the spill prevention and response program. Responsibilities of the Spill Coordinator performed by the DPW EMD include:

- Reviewing plans and specifications presented to the DPW EMD concerning spill prevention measures, and helping to develop plans and design standards that meet all requirements of this plan.
- Disseminating training information to include provisions contained within this plan.
- Establishing prearranged agreements with a German remediation contractor.

Responsibilities of the Spill Coordinator at the Fire & Emergency Services Division include:

- Testing the effectiveness and responsiveness of this SPRP on an annual basis. The test should include all members of the FRT. Any members of the FRT outside the USAG are to be included as necessary.
- Coordinating with German Fire Department, German Police, and appropriate members of the FRT to arrange for control and cleanup of POL and/or HS discharges or spills off installations, which were the responsibility of the USAG.
- Establishing prearranged agreements with the German fire department / disaster protection agency so they are available if a spill exceeds the response capabilities of the installation.

Spill reports are developed and recorded by the Fire & Emergency Services Division. A copy of the spill report is sent to the Spill Coordinator at the DPW EMD.

USAG Mannheim Hazardous Waste Emergency Coordinator

Installations that store hazardous waste must designate a person or persons to act as HW Emergency Coordinator for each hazardous waste storage area (HWSA). No HWSA is located within the USAG Mannheim.

1.4.3.2 Responsibilities at the Units

Unit Commander

Responsibilities include:

- Coordinating with the USAG Mannheim Commander, EMD, and USAG Mannheim Fire Department as necessary to ensure effective implementation, review, and testing of this SPRP.

- Coordinating with and assisting the FRT for the cleanup of POL and /or HS releases whenever the unit's area of responsibility is involved; and ensuring that all spills are reported in accordance with this SPRP.
- Ensuring that unit personnel are trained and follow procedures for POL and HS handling, emergency response, and clean up.
- Appointing a ECO (Environmental Compliance Officer) with direct responsibility for POL and HS handling.
- Reviewing unit SOPs after a spill occurs to see if changes are needed to prevent a reoccurrence. In addition, provide a written report to the USAG Spill Coordinator if the spill meets the reporting criteria listed in Chapter 4 of this SPRP.

Environmental Compliance Officer (ECO)

Responsibilities of the ECO include:

- Notifying the FRT if the spill is significant.
- Ensuring the effective implementation of this SPR plan at the unit level.

1.4.3.3 Public Affairs Office

Responsibilities include:

- Provides information releases and public relations support as appropriate in the event of a significant spill.
- Dissemination of any information to the general public in coordination with the USAG Commander.

Table 1-1 SPRP Regulatory Cross-Reference Matrix

German FGS Section	Description	Applicable SPRP Section	Remarks
4.3.2.1.7	Slug Prevention Plan	Appendix 7	
5.3.4	Master Listing and Inventory	Appendix 6	
6.3.6	Contingency Plan	Chapter 3 / Appendix 8	
9.3.1	Spill Plans	Appendix 8 / Chapter 3 / Appendix 6	
11.3.1.4	Pesticides will be addressed	Appendix 1	
18.3.2.1	Facility Incident Commander (FIC)	3.2 / 3.3 / 4.2 / Appendix 8	
18.3.2.2	General installation information	Appendix 5	
18.3.2.3	Inventory of potential spill sites	Appendix 6	
18.3.2.4	POL and HS Inventory	Appendix 6	
18.3.2.5	Emergency Services Arrangements	Appendix 2 / Appendix 8	
18.3.2.6	Emergency Services Contact List	Appendix 8	
18.3.2.7	Spill Prevention Control Equipment	2.1 / Appendix 6	
18.3.2.8	Emergency Equipment	Appendix 6	
18.3.2.9	Evacuation Plan	Appendix 2	
18.3.2.10	Spill Prevention Deficiencies	Appendix 4	
18.3.2.11.1	Operations to preclude spills	Appendix 1	
18.3.2.11.2	Inspections	Appendix 3	
18.3.2.11.3	Record-keeping	Chapter 5	
18.3.3.1	Responsibilities	1.4 / Appendix 8	
18.3.3.2	Immediate Response Actions	3.1 / Appendix 8	
18.3.3.3	Facility Response Team	3.2 / Appendix 8	
18.3.3.4.2	Procedures for Public Affairs Involvement	4.3.3	

German FGS Section	Description	Applicable SPRP Section	Remarks
18.3.3.5	Emergency Contact List	Appendix 8	
18.3.3.6	Notification of FIC, Commander and Local Authorities	Appendix 8	
18.3.3.7	Notification Responsibilities	1.4 / Appendix 8	
18.3.3.8	Surveillance Procedures	Appendix 3	
18.3.3.9	Prioritized list of critical resources	Appendix 5	
18.3.3.10	Other resources	4.3.2	
18.3.3.11	Cleanup methods	3.3	
18.3.3.12	Procedures for reuse and disposal	3.3.1	
18.3.3.13	Health, safety, and fire prevention	Chapter 3	
18.3.3.14	Releasing information	4.3.3	
18.3.4.1	Record-keeping	Chapter 5	
18.3.4.2	Significant spill reporting to FIC	4.2	
18.3.4.3	FIC reporting	Appendix 8	
18.3.4.4	Further notification	4.3.1	
18.3.4.4.1	Baden-Württemberg notification process	4.3 (Table 4-1)	
18.3.4.4.3	Hessen notification process	4.3 (Table 4-1)	
18.3.4.4.4	Rheinland-Pfalz notification process	4.3 (Table 4-1)	
18.3.4.5	Spill occurrence off-installation	Appendix 8	
18.3.5	Training and Response Drills	Chapter 6	
18.3.6	Removal/Management Contaminated Soil	3.3.1	

German FGS Section	Description	Applicable SPRP Section	Remarks
18.3.7	Immediate Response Actions	Appendix 8	
19.3.9.4	UST Operating Instructions	Appendix 1	

Table 1-2 Locations of SPRP Copies

Installation Name	Organization/ Department	Building Number	Person Responsible for Plan
Sullivan Barracks	USAG Commander	245	LTC Sturgeon
Taylor Barracks	DPW Director	346	Larry Scavone
Taylor Barracks	DPW EMD	346	Ms. Foley
Coleman Barracks	Fire & Emergency Services Division	21	Mr. Krug
Taylor Barracks	DPW O&M	346	Mr. Holeczek
USAG wide	All facilities storing or handling POL or HS	USAG wide	Environmental Compliance Officers (ECOs)

2 SPILL PREVENTION

This chapter of the SPRP provides procedures for the prevention of POL and HS spills within the USAG Mannheim's area of control, whether on or off installation. Maps providing drainage patterns, possible migration pathways, water protection areas, etc. along with pertinent information regarding the USAG are included in Appendix 5. Standard operating procedures (SOPs, Appendix 1) have been implemented to reduce the risk of spills by establishing consistent practices that are less likely to result in the uncontrolled release of POL and HS. Employees that work with POL and HS are familiar with the Evacuation Plan (Appendix 2) and inspection and surveillance procedures for POL and HS operations (Appendix 3).

All field operations, maneuvers and exercises, whether on- or off-installations, are performed in compliance with this SPRP. The spill prevention and response procedures in this plan are required for activities at local training areas, major training areas, and maneuver rights areas. Many of the prevention and response procedures are modified for field conditions and the temporary nature of operations (i.e., portable secondary containment systems).

IMA-EURO has prepared a guidance handbook, titled *'You Spill, You Dig!'* An Environmental Handbook for Deployment, for spill prevention and response during field operations. The most recent version of this document may be used as a quick reference guide for spill prevention in the field.

2.1 SPILL PREVENTION STRUCTURES AND EQUIPMENT

POL and HS storage containers and devices are constructed of materials that are compatible with the liquids they contain and the conditions at which they are maintained, and are protective of human health and the environment (including water and groundwater).

Flammable/corrosive material storage lockers and buildings are used to store liquid POL and HS. Both devices have been constructed to contain spills on shelves or in a sump built into the device. Corrosive storage lockers typically have plastic-lined shelves to contain releases of corrosive liquids. These devices are closed and locked when not in use to prevent unauthorized transfer of materials. These devices are located on portions of the USAG that are not subject to flooding or those located in Water Protection Zones I or II.

Secondary containment systems (such as spill pallets, berms, and sumps) are sufficiently impervious to retain substances released, with a maximum permeability of 1×10^{-7} centimeters per second. They are capable of holding 10 percent of the liquid volume of all stored packages and movable vessels, and at least 100 percent of the single largest liquid vessel. Open outdoor secondary containment systems have been designed to contain sufficient freeboard for precipitation and product expansion. Secondary containment systems have positive means (manual valves or drain plugs) that are closed and locked when not in use to prevent releases from leaving the system. In Germany, secondary containment systems need a qualification approval ("Bauartzulassung").

Specific spill prevention equipment available at the installations is listed in Appendix 6 Table A-6.3.

3 SPILL CONTROL AND RESPONSE

This section of the SPRP describes the specific actions that are performed following a POL and/or HS spill within the USAG Mannheim's area of control, whether on or off the installations.

Initial spill action procedures are addressed in Figure 1 in the Red Plan in Appendix 8. The specific response to a spill will be dictated by site- and incident-specific variables, including the type and volume of the substance released, the media into which the material is released, the weather conditions during the release, and the environment where the material is released. If the identity of the spilled material is known, the Material Safety Data Sheets (MSDSs, readily available in the vicinity of the storage area) will be immediately obtained and checked for specific information including physical/chemical properties, health hazards, and spill response and cleanup procedures.

3.1 INCIDENT EVALUATION

The incident shall first be evaluated to identify actual or potential threats to life or human health. **All fire, explosions, or threats thereof, are considered threats to life or human health**. If an actual or potential threat to life or human health is identified, an evacuation shall be initiated (Appendix 2 contains site-specific evacuation information). The incident shall be immediately reported to points of contact contained in Table A-8.1 (Appendix 8, Red Plan).

Actual and threatened fires and/or explosions shall be eliminated before any other action related to the incident is initiated. Fire/explosion suppression activities will continue throughout the emergency response as determined by the Fire Department.

Fire suppression water and other runoff from burning POL and HS must be immediately controlled. Prevent spread of these liquids by blocking floor drains, damming flow, or by other means. Collected runoff water must be tested and treated if required.

If the incident does not pose a threat to life or human health, the spill component of the incident shall be evaluated. If the spill is beyond the capability of the person(s) identifying the incident, Figure 1 in the Red Plan (Appendix 8) provides information on immediate response actions.

If the spill is small, and of a known substance, it will be cleaned up immediately by appropriately trained personnel. MSDSs will be referenced to identify proper containment, recovery, and storage procedures. Waste materials shall be containerized for proper future disposal. An incident summary shall be prepared and submitted to the EMD for review and maintenance in the spill files.

3.2 SPILL ASSESSMENT

The FRT shall assess the spill to identify the need for immediate government agency notifications (i.e., if a significant spill has occurred), potential future evacuation conditions, and to formulate a control, containment, and recovery plan. If the spill requires resources beyond those possessed by the FRT, then outside government agencies identified in Table A-8.1 (Appendix 8, Red Plan) shall be contacted. Access to the spill area shall be immediately limited to authorized personnel through the use of USAG Security Police.

3.2.1 Determine Safe Actions

Knowledge of spilled material properties and prevailing weather conditions are critical components to the determination of safe actions. Any information related to the spilled materials (especially MSDSs) will be reviewed to identify chemical and physical properties, exposure potential, and spill response procedures. The following additional information will be evaluated:

- The predicted migration direction (see maps in Appendix 5) and speed of materials being released (see Table A-6.2), incident-specific evacuation routes (see Appendix 2), safe distances, and places of refuge.
- A safe way to approach the spill and stage response equipment, vehicles and personnel.
- Appropriate personal protective equipment (PPE), including respiratory protection, according to potential exposure risks.
- Methods to monitor and mitigate any fire and safety hazards to response personnel or neighboring communities from vapors, gases, dusts, or free product throughout the entire response. This may include the use of explosion-proof pumps and non-sparking recovery equipment.
- Areas to be secured, as well as decontamination areas for personnel and equipment.
- Potential medical needs. Identify hospital(s) needed to assist with medical emergencies during response.

3.2.2 Stopping Spills

Once safe actions have been identified, the spill and spread of materials shall be stopped or slowed. The method used to stop the spill source will be determined by the physical conditions causing the spill. This may involve closing a valve, deactivating a pump, up-righting an overturned container, plugging a leaking container, or transferring a container's contents to another container.

Depending on the availability of personnel, spill containment activities will either be performed during or following actions to stop the spill source. Containment activities will be prioritized according to potentially impacted resources, based partially on the following ordered list.

1. Drinking water sources
2. Wastewater treatment plants (see Appendix 7)
3. Water or other habitats designated as sensitive or ecologically critical (consult Appendix 5 to identify critical water resources and other special areas of concern that must be protected in the event of a spill)
4. Soil
5. Air

Spill containment actions will be dictated by the surface upon which the material has been spilled. On paved or other hardened surfaces, booms and/or berms shall be placed at the leading edge of a spill to attempt to stop or delay spill advance. To prevent environmental contamination, spills shall be contained on or directed to impervious surfaces as much as possible. On unpaved surfaces, trenches may be used to stop or delay spill advance, and may also be used as a

recovery location. Nearby floor drains, catch basins, or other liquid conduits shall be immediately blocked by any method available to prevent releases from reaching underground conduits, including sewers.

Emergency response actions conducted by the FRT will be terminated when the immediate danger of the spill and its potential for spreading have been brought under control. Demobilization of the FRT should include decontamination of personnel and equipment, restoring equipment and supplies for future use, and returning personnel, equipment, and supplies to designated areas. See the FRT action list in Figure 2 in the Red Plan.

3.3 SPILL CLEANUP

The cleanup of the stabilized spill material or any residual contamination of soil, water, or equipment will be directed by the FIC, and/or the German authorities. The determination of the point at which an emergency no longer exists is subject to judgment, but will be confirmed by the FIC. This determination includes ensuring that the spill site is secure from the immediate risk of further discharge.

3.3.1 General Cleanup and Disposal Requirements

The DoD facility, unit, or organization that owns or controls the spill source is responsible for removal and disposal of any contaminated material according to applicable regulations (including DoDI 4715.8, "Environmental Remediation for DoD Activities Overseas"), and returning the spill site to acceptable conditions. Activities shall be conducted in a manner and to a degree to prevent future contamination. If the organization is not able to perform these functions, the local district German authority may do so at DoD reimbursable expense. These functions include, but are not limited to, the following:

1. Remove free product from water, land surfaces, and containments as soon as possible.
2. Implement actions required to decontaminate or control runoff from contaminated surfaces.
3. Collect contaminated materials that can pollute water with booms and other equipment as needed.
4. Collect absorbents, soils, grit, damming materials, and other substances used to control the spill.

Any surface waters, sediments, soils or groundwater that have become contaminated will be removed or cleaned up according to the German or local environmental cleanup standards which apply to the spilled material and location. The local authorities will be contacted for guidance on conducting any investigations, chemical analyses, and determining the appropriate cleanup standards.

To the maximum extent possible, spill control and cleanup measures will be performed in a manner to allow reclamation and reuse of the spilled material. Unrecoverable POL and HS, contaminated spill recovery materials, and impacted media (i.e., soil) must be appropriately removed and managed as HW until fully characterized. A careful evaluation of the MSDSs and the USAG Hazardous Waste Management Plan will initially be used to properly characterize any waste materials. The characterization will be performed by the appropriate DPW EMD staff or

other qualified person. The characterization consists of determining the relevant properties and chemical composition of the waste materials and making a determination based on the HW standards. Contaminated soil and any remaining free product must be analyzed before final disposal. If the material(s) meets HW characterization criteria, all items will be handled and disposed of according to the Hazardous Waste Management Plan.

Non-hazardous wastes will be disposed of through routine waste handling methods. Non-hazardous pesticide wastes will be disposed of according to manufacturer or German regulatory guidelines.

Before the spill site is returned to normal operations, all safety and emergency equipment will be inspected to ensure it is ready for use. All safety hazards and residual contamination will be removed, properly mitigated, or isolated and flagged off.

4 SPILL NOTIFICATION AND REPORTING

This section describes the spill notification and reporting procedures that will be executed following spill discovery. The section describes the circumstances under which personnel who are responsible for or respond to a spill are required to notify the various DoD and non-DoD authorities.

4.1 POINTS OF CONTACT

Personnel and organizations listed in Table A-8.1 (Appendix 8, Red Plan) may need to be notified following a POL and HS spill at the USAG Mannheim. Notifications will be made based on the specific characteristics of the spill.

4.2 SIGNIFICANT SPILLS

A significant spill is a spill of POL or HS that poses a threat to humans and/or the environment. Additionally, a significant spill is any uncontained release to the land or water in excess of any of the following quantities:

Substance Spilled	Definition of "Significant" Spill
POL or Liquid / semi-liquid HS	> 400 liters (110 gallons)
Solid POL and HS	> 225 kilograms (500 pounds)
Combinations of POL and liquid, semi-liquid, and solid HS	> 340 kilograms (750 pounds)

Significant spills must be immediately reported to the FIC, and actions taken to eliminate the source and contain the spill. A spill that is contained within an impervious berm, on a nonporous surface, or inside a building (and does not involve a volatile substance) is not considered a significant spill.

However, the FIC has to be contacted immediately for all significant and non-significant spills that exceed capabilities of units or organizations. Additionally, the USAG Mannheim has determined that all spills that involve contaminated soil have to be reported to the USAG Spill Coordinator at the EMO.

4.3 NOTIFICATION REQUIREMENTS

This section describes the notification procedures to be followed after a spill has occurred. Figure 3 in the Red Plan consolidates this information into a flow chart. In general, the initial responder or any person discovering an actual or imminent HS spill should immediately report the incident to his/her immediate supervisor or the ECO, regardless of the volume of the spill. Minor spills should be cleaned up immediately. In all cases, spill notification should include:

- Name and location of person reporting spill;

- Time of spill;
- Location of spill;
- Type of material spilled;
- Estimated quantity of spill; and
- Any need for medical assistance.

The FRT will be notified by the FIC and must have access to a reliable communication system for timely spill notification. The FIC must prepare a written report to the Commander and/or Defense Agency and Executive Agent for all uncontained significant spills.

4.3.1 Notification Requirements for Spills Inside DoD Installations

Table 4-1 provides a list of the specific notification requirements for spills inside a DoD installation, per FGS Section 18.3.4.4.

Table 4-1. Notification Requirements for Spills Inside DoD Installations

German State	Type of Spill/Release	Authority that must be notified
Baden-Württemberg	Release of water-endangering substances in which the threat of pollution or a hazard to a water body cannot be excluded.	The competent authorities *(untere Wasserbehörde).* If the competent authority cannot be reached, the nearest police station must be notified.
Hessen	A release of water-endangering substances that have filtered into a surface water body, a sewage treatment plant, or the ground, or if for other reasons, the threat to a body of water cannot be excluded. The obligation for notification does not apply if only minor (unbedeutende) quantities of substances have been released.	The competent authorities or the nearest police station.
Rheinland-Pfalz	Release of water endangering substances have filtered, or are going to filter, into water body, a sewage treatment plant, or into the ground, or, if for other reasons, a threat to a water body cannot be excluded.	The competent authorities or the nearest police station.

The following notification procedures are followed for significant spills occurring inside DoD installations (IMA-E Spill Reporting Guidance Memorandum):

- The initial responder notifies his/her Supervisor or the ECO.
- The Supervisor or ECO notifies the FIC if it is a significant spill.
- The FIC notifies the USAG Mannheim Spill Coordinator, the DPW, and IMA-E.

Only if Directorate of Logistics (DOL) owned facilities are involved:

- The FIC notifies the Defense Energy Support Center (DESC), if applicable.

Only for uncontained significant spills:

- The garrison commander, in consultation with the EMO and PAO, notifies the Host nation (HN) authorities. If a significant spill is suspected, but an impact to a water body has not been confirmed, IMA-E has to be contacted prior to contacting the HN authorities.

All points of contact (POC) and their telephone numbers are included in Table A-8.1 (Appendix 8, The Red Plan).

4.3.2 Notification Requirements for Spills Outside DoD Installations

The following general notification procedures are followed for spills occurring off the installation, in areas not under U.S. control (FGS Section 18.3.4.5 and IMA-E Spill Reporting Guidance Memorandum):

- The initial responder notifies his/her Supervisor or the ECO.
- The Supervisor or ECO notifies the FIC if it is a significant spill.
- The FIC notifies the USAG Baumholder Spill Coordinator, the DPW, and IMA-E.
- The FIC notifies the German Police or German Fire Department. The German Fire Department will control and clean up the spill.

Only if DOL owned facilities are involved:

- The FIC notifies the DESC, if applicable.

All POCs and their telephone numbers are included in Table A-8.1 (Appendix 8, The Red Plan).

4.3.3 Further Notification Requirements

Beyond initial requirements discussed above, the continued spill notification procedures are largely controlled by the Army's chain of command in a specific situation, as well as the specific requirements of the German or local government authorities.

4.3.4 Spill Incident Reporting after Clean-up of a Spill

After a spill is cleaned-up, a spill incident report is filled out and sent to DPW EMD. A spill report has to be filled out for all significant spills or in case soil is contaminated and has to be disposed of. A sample for the spill incident report is given in Appendix 3.

4.3.5 Non-DoD Resources

The USAG Mannheim has established prearranged agreements with non DoD resources who are available if the spill exceeds the USAG`s response capabilities. There is an contract for emergency services with IBL Umwelt- und Biotechnik GmbH in place which is renewed every year by EMD (see Table A-8.1). There is also an annually renewed maintenance contract for gas stations and for aboveground and underground storage tanks and an emergency contract for gas stations through O&M. The USAG Mannheim Fire & Emergency Services Division and the

German Fire Department work together very closely. If necessary the German Fire Department provides immediate assistance.

4.3.6 Involvement of Public Affairs

The procedures and methods for releasing information in the event of a spill will be determined by the USAG Mannheim Commander and the Public Affairs Office (PAO). The PAO coordinates with the appropriate USAG and installation personnel and provides information releases and public relations support as needed. The PAO will be the releasing authority to the media for any information regarding the USAG.

5 RECORD-KEEPING

To ensure both the spill prevention program and POL and HS management programs are compliant with applicable regulations, it is essential to generate and retain complete records of spill prevention and response activities. Properly maintained records may also be used to help identify and correct compliance deficiencies or to develop improved procedures or processes for future operations.

Records of the following types of activities related to the spill prevention and response program will be kept:

- Actions taken by the FRT or any other spill response crews (these records must be kept);
- Any spill incident, response or cleanup;
- Material inventories;
- Routine or non routine inspections;
- Training activities;
- Personnel responsibilities (e.g. appointment orders for ECOs);
- Waste pickup and disposal;
- Any changes to POL and HS storage areas (e.g., significant changes in the types of POL and HS stored, etc.).

When emergency procedures are invoked, the USAG must maintain records of the following nature:

- Documentation of date, time, location, nature, and extent of the spill incident
- Documentation of response actions implemented
- Documentation of cleanup performed
- Documentation of completion of response actions and cleanup, and certification that the impacted area(s) are safe for resumed use/entry.
- Documentation of root cause or source of spill

A complete set of records is kept at the DPW EMD. The Fire & Emergency Services Division and other individuals or offices also keep a full or partial set of the spill program records, as appropriate.

Facilities that manage HW, including HW accumulation points, have additional record-keeping requirements that will be specified in the Hazardous Waste Management Plan.

6 TRAINING

6.1 GENERAL

This section summarizes the training requirements for personnel involved in the spill prevention and response program at the USAG Mannheim. The USAG Mannheim Commander is responsible for establishing a program to provide the necessary training to spill prevention and response personnel. This training program has been prepared to ensure the effectiveness of spill response personnel and equipment and be sufficient to provide proper responses to spills or releases. The training program includes a review of spill cleanup equipment, response procedures, and personal protective clothing and equipment.

6.2 TRAINING REQUIREMENTS

Personnel responsible for the implementation of this SPRP, including members of the FRT, have to be trained on the purpose and content of this plan.

The Fire and Emergency Services Division provides regular spill response training for their employees. Hazardous Waste and Hazardous Material Management training classes and refresher courses including spill prevention and response training are provided for the Environmental Compliance Officers. These classes are coordinated by EMD and sponsored by IMA-Europe. Units and tenants provide their own regular spill prevention and response trainings for military personnel and local national employees handling hazardous substances. The training also includes spill prevention and response activities during field operations or deployment. Documentation of training is maintained as described in Chapter 5 Record-Keeping.

7 REFERENCES

Dames & Moore Group, *'You Spill, You Dig!'* An Environmental Handbook for Deployment, U.S. Army Corps of Engineers, Europe District.

North Atlantic Treaty Organization, August 1959 (as amended), *Revised NATO Status of Forces Agreement (SOFA) Supplementary Agreement*, USAREUR.

U.S. Army, Europe (USAREUR) and Seventh Army (Headquarters), December 1993, *USAREUR Regulation 200-1, Environmental Quality, USAREUR Environmental Quality Program.*

U.S. Army, Europe (USAREUR), November 1991, *Joint Transportation of Hazardous Material, USAREUR Regulation 55-4*.

U.S. Army Europe (Headquarters), August 2002, *Environmental Final Governing Standards, Germany*, Heidelberg, Germany.

U.S. Army (Headquarters) April 1990, *Army Regulation 200-1, Environmental Quality Environmental Protection and Enhancement*, Washington, D.C.

U.S. Army (Headquarters), October 1990, *Army Regulation 40-5, Medical Services Preventive Medicine*, Washington, D.C.

U.S. Defense Logistics Agency, January 1999, *Storage and Handling of Hazardous Materials, Defense Logistics Agency Instruction (DLAI) 4145.11*, Fort Belvoir, VA.

U.S. Defense Logistics Agency, November 1994, *Preparing Hazardous Materials for Military Air Shipments* Defense Logistics Agency Manual (DLAM) 4145.3 Washington, D.C.

U.S. Department of Defense (DoD), August 1997, *Defense Materiel Disposition Manual, DoD 4160.21-M*, Washington, D.C.

U.S. Department of Defense (DoD), October 1990, *DoD Hazard Communication Program DoDI 6050.5*, Washington, D.C.

U.S. Department of Defense Overseas Environmental Task Force, October 1992, *Overseas Environmental Baseline Guidance Document.*

You Spill, You Dig, An Environmental Handbook for Deployment. Prepared by AMEC Earth & Environmental for the U.S. Army

GENERAL APPENDICES

APPENDIX 1	STANDARD OPERATING PROCEDURES TO PREVENT POL AND HS SPILLS
APPENDIX 2	EVACUATION PLAN
APPENDIX 3	CHECKLISTS AND FORMS FOR INSPECTION AND SURVEILLANCE
APPENDIX 4	SPILL PREVENTION AND RESPONSE DEFICIENCIES AND CORRECTIVE ACTION

APPENDIX 1

STANDARD OPERATING PROCEDURES

TO PREVENT POL AND HS SPILLS

Standard Operating Procedures

Standard operating procedures (SOPs) prepared by the EMD are used at the USAG to help prevent spills. These procedures consist of a summary of the specific spill prevention requirements contained in the relevant German FGS references and Best Management Practices.

Beyond these procedures, several facilities, units, or organizations at the installation also maintain a set of SOPs to cover location-specific needs.

A1.1 HAZARDOUS MATERIALS

The following are selected general spill prevention procedures for hazardous materials storage areas. These and other POL and HM procedures and requirements can be found in greater detail in the FGS Chapter 5.

1. The installation maintains MSDSs for all POL and HS procured, used, or stored.

2. MSDSs are maintained in locations where POL and HS are stored and/or utilized.

3. Materials are properly secured and segregated to minimize fire, explosion, chemical, and other hazards.

4. At locations where German employees are required to work with HS, each work center will maintain a file of operating instructions (Betriebsanweisung) for each HM procured, stored, or used at the work center. The operating instructions shall be provided in German (FGS C5.3.6.1).

5. Additional Requirements for Rheinland-Pfalz: Facilities that store, distribute, and/or handle water endangering substances must maintain clearly visible operating instructions (Betriebsanweisung) (FGS C5.3.7.4).

6. Any POL and HM storage areas must be located outside of water protection area I and II. Water Hazard Category D above-ground facilities are not permitted in zone III protected areas (see Table C5.T2 in FGS Chapter 5). POL and HS storage areas must be operated to prevent the contamination of water bodies or other detrimental effects (for detailed information see FGS Section C5.3.14).

7. DoD handling requirements in Storage and Handling of Hazardous Materials, Defense Logistic Agency Instruction (DLAI) 4145.11 are followed at all times.

8. Depending on the volume and the Water Hazard Class, specific POL and HM must be secondarily contained (see FGS Section C5.T2).

9. Flammable liquid storage is prohibited in the following location:

    - Passageways and thoroughfares;

    - Staircase;

- Generally accessible hallways;
- Roof of residential buildings, hospitals, office building and similar buildings as well as in their roof-spaces; and
- Public restaurant and residences.

10. Automatic fire alarm systems, smoke exhaust methods, fire protection plans, and emergency evacuation plans have been installed and prepared for hazardous materials storage areas.

In addition, outdoor storage areas used to store POL and HM comply with the following:

1. Toxic substance storage areas are separated from buildings and adjacent storage areas by walls rated for 90-minute fire resistance. The walls are 1 meter higher than the material.

2. Toxic materials are at least 5 meters from any building doorway.

A1.2 HAZARDOUS WASTE STORAGE PROCEDURES

HW procedures and requirements will be found in the Hazardous Waste Management Plan.

A1.3 BULK STORAGE OF POL IN ABOVE GROUND STORAGE TANKS

The following are selected general spill prevention procedures for POL aboveground storage tanks (ASTs). These and other POL procedures and requirements can be found in greater detail in the German FGS Chapters 5 and 9.

1. AST systems are not operated if tank piping, fittings and safety devices are not well constructed and in sound condition.

2. AST facilities are inspected by a qualified person (e.g. TÜV) prior to use to ensure they are properly constructed, in good condition, and good working order. A record of the inspection is maintained.

3. Temporarily closed storage facilities are secured so they do not present an environmental or safety hazard.

4. Inspection access is provided for tanks, piping, and fittings, and devices that warn of leaks.

5. Each AST is located in a containment structure with capacity calculated according to the provisions for water endangering substance (see German FGS Tables C5.T1 and C5.T7).

A1.4 MANAGEMENT AND OPERATION OF POL STORAGE FACILITIES

The following are selected general spill prevention procedures for management and operations of POL storage facilities. These and other POL procedures and requirements can be found in greater detail in the German FGS Chapter 9.

1. Facilities are kept in good repair, operated in an orderly manner, and inspected regularly.

2. Facilities requiring a permit must be inspected by an expert, prior to initial operation and every 5 years thereafter (see German FGS Section C9.3.8.1).

3. Containers filled with fixed line connections are labeled with the allowable operating pressure.

4. Tank trucks have an automatic shut-off device to protect the storage tank against overflow.

5. POL products are unloaded near water bodies only if there are no grounds to believe that there will be drainage problems, water pollution, or POL discharges to a sewer system.

6. Discharges from containments are compliant with applicable standards and do not pollute the environment.

7. Storm water drained from containments is inspected prior to discharge for petroleum sheen. Refer to Appendix-3 of this plan for inspection requirements.

8. Petroleum sheen on discharge waters is removed with absorbent material or an oil-water separator.

9. Water draws from storage tanks is handled as appropriate to the materials and individual installation wastewater discharge requirements.

A1.5 PESTICIDE MIXING AND STORAGE AREAS

The following are selected general spill prevention procedures for pesticide mixing and storage areas. These and other pesticides procedures and requirements can be found in greater detail in the German FGS Chapter 11 and in the USAG Mannheim Pest Management Plan.

1. Pest management facilities and operations, including mixing and storage areas, comply with design and construction standards in Military Handbook 1028-8A.

2. Pesticide storage areas contain a readily visible current inventory of all items in storage, including items to be disposed of.

- Pesticide storage areas are regularly inspected and secured to prevent unauthorized access.

A1.6 UNDERGROUND STORAGE TANKS

Spills related to USTs are regulated by specific, detailed rules that apply only to USTs. The following are selected general spill prevention procedures for UST operations. Operating instructions *(Betriebsanweisung,* to include an operational monitoring plan, a maintenance plan, and an alarm plan) must be developed in both English and German for USTs containing water-endangering substances. For USTs containing flammable liquids, these operating instructions must be displayed at conspicuous locations near the USTs. More detailed information on UST management can be found in German FGS Chapter 19.

1. USTs storing water-endangering substances are prohibited in Water Protection Zone I and II (see German FGS Section C19.3.8).

2. USTs have spill and overflow prevention equipment.

3. Leak detection device must be designed to automatically detect leaks in piping, the walls and floors of containers, and detect leaks above and below the liquid level.

4. Filling and emptying of water endangering substances is supervised. Transfers to or from USTs do not occur until all elements involved in the transfer (including safety procedures and equipment) are in place and functioning properly.

5. Transfers are continuously monitored.

6. Personnel working in the vicinity are familiar with the leak detection system and the alarm plan.

7. Dome shafts are secured so that water and/or unauthorized persons may not enter.

8. Leaking USTs are immediately removed from service.

A1.7 HANDLING OF POL AND HS

The handling of POL and HS refers to their use in work areas, which includes activities after storage and before disposal (i.e., container and/or liquid transfers). DoD Handling Requirements in Storage and Handling of Hazardous Materials, DLAI 4145.1 are followed at all times. POL and HS handling procedures and requirements can be found in greater detail in the German FGS Chapters 5 and 6.

1. Drip pans or absorbent materials are placed at dispensing containers to collect drips or spills.

2. Dispensing areas are located away from catch basins and storm drains.

A1.8 BULK LIQUID LOADING AND UNLOADING PROCEDURES

The following are selected general spill prevention procedures for bulk liquid loading and unloading operations. These and other bulk liquid handling procedures and requirements can be found in greater detail in the German FGS Chapters 5 and 19.

1. The ground surface in the area of filling facilities must be sufficiently stable and impermeable.

2. POL products are unloaded near water only if there are no grounds to believe that there will be drainage problems, water pollution, or POL discharges to a sewer system.

3. Tankers loaded and unloaded in harbors or inner harbors are located where no current runs. The drainage of POLs into waterways is prevented.

4. Transfers of POL are conducted only in approved locations. Transfers on the banks of waterways are avoided, and permitted only if adequate safety systems and protective measures are used.

5. The truck and facility is inspected for proper conditions and leaks before unloading or loading. Hoses and other movable lines are arranged to allow inspection along their entire length. The entire process of filling and emptying tanks is observed by an operator.

6. Load capacity limits for tanks are observed.

7. Transfers of POLs with a flash point less than 55° C are performed in areas specifically designed and prepared for these materials.

8. Pipes and hoses used for transfers, loading, and unloading are connected tightly and do not leak during the transfer.

APPENDIX 2

EVACUATION PLAN

EVACUATION PLAN

Evacuation Plans similar to the example given below and escape route maps are conspicuously posted in buildings where POL or HS is stored or handled.

Generic Building Evacuation Plan

Facility/Location Name:	
Evacuation Signals:	
Primary Evacuation Route:	
Alternate Evacuation Route:	
Designated Meeting Place Following Evacuation:	
Emergency Telephone Numbers	
Installation or USAG Fire Department:	**DSN 117**
German Fire Department:	**Civilian 112**
Hospital / Ambulance:	**DSN 116**
Military Police:	**DSN 114**
German Police:	**Civilian 110**
Facility Incident Commander:	**117 (Fire & Emergency Services Division)**
USAG Spill Coordinators:	**Fire and Emergency Services Division** **Civilian 0162-2728356** **DSN 382-4120** **Mr. Gebreyohannes, DPW EMD** **Civilian 0162-2728635** **DSN 380-7699** **Mr. Schork, DPW EMD** **Civilian 0162-2728644** **DSN 380-7035**
USAG Commander:	**DSN 380-1500**
Instructions for Turning Off Power and Water:	
Locations:	
Evacuation Instructions:	

APPENDIX 3

CHECKLISTS AND FORMS FOR INSPECTION, SURVEILLANCE, AND SPILL INCIDENT REPORTING

Checklist forms used as a tool for routine internal HM/HW inspections performed by the EMD are provided in the following. Additionally, a sample "spill incident report" for reporting spills in writing to the EMD after the spill is cleaned-up is provided in the following.

Environmental Performance Assessment
Hazardous Materials / Hazardous Waste

ACTIVITY/UNIT: _____ INSTALLATION: _____

DATE OF ASSESSMENT: _____

REPRESENTATIVES interviewed: (Name, Function, Phone, Email):

_____

_____

PUBLICATIONS ON HAND:	YES	NO	N/A
- FINAL GORVERNING STANDARDS (FGS)	____	____	____
- USAG Mannheim Memo 200-1	____	____	____
ENVIRONMENTAL COMPLIANCE OFFICER APPOINTED?	____	____	____

_____ _____

PRIMARY ALTERNATE

APPOINTED PERSONNEL ATTEND HM / HW TRAINING ?	____	____	____
DATE OF LAST TRAINING: _____			
TRAINING RECORDS MAINTAINED FOR THREE YEARS ?	____	____	____
UNIT HM/HW SOP/SPILL RESPONSE PLAN DEVELOPED ?	____	____	____
DATE OF LAST UPDATE: _____			
ANNUAL HM INVENTORY PREPARED ?	____	____	____
INVENTORY SUBMITTED TO EMD ?	____	____	____
WEEKLY HM / HMSA INSPECTIONS CONDUCTED ?	____	____	____
INSPECTION SHEETS ON FILE SINCE: _____			
DAILY TANK INSPECTIONS CONDUCTED ?	____	____	____
INSPECTION SHEETS ON FILE SINCE: _____			
SITE MAP OF STORAGE, DISTRIBUTION & HANDLING LOCATIONS PREPARED ?	____	____	____
MATERIAL SAFETY DATA SHEETS READILY AVAILABLE ?	____	____	____
MSDS IN GERMAN LANGUAGE AVAILABLE ? (If applicable)	____	____	____
BETRIEBSANWEISUNGEN AVAILABLE ? (If applicable)	____	____	____

Environmental Performance Assessment
Hazardous Materials / Hazardous Waste

WORK AREA(S)_____BLDG #_____

	YES	NO	N/A
PROPER HAZARD SIGNS POSTED AT WORK AREA ?	____	____	____
PROPER MANDATORY SIGNS POSTED AT WORK AREA ?	____	____	____
PROPER PROHIBITORY SIGNS POSTED AT WORK AREA ?	____	____	____
ONLY DAILY-USE QUANTITIES OF HMS STORED IN WORK AREAS ?	____	____	____
DAILY-USE QUANTITES STORED IN SAFETY CABINETS ?	____	____	____
ACCESS TO TOXIC/VERY TOXIC HMS SECURED ?	____	____	____
SAFETY CABINETS PROPERLY LABELED ?	____	____	____
EXPIRED MATERIALS AVAILABLE ?	____	____	____
EXCESS HMS PROCESSED THRU MANNHEIM REUSE CENTER ?	____	____	____
ARE ALL HM CONTAINERS CLEARLY LABELED ?	____	____	____
ARE ALL HM CONTAINERS IN GOOD CONDITION ?	____	____	____
ARE DRIP PANS/ABSORBENT PLACED UNDER CONTAINERS TO COLLECT DRIPS AND SPILLS ?	____	____	____
ARE ONLY COMPATIBLE HMS STORED TOGETHER ?	____	____	____
ARE ALL HW CONTAINERS CLEARLY LABELED ?	____	____	____
"HAZARDOUS WASTE", Name of waste, Hazardous Property Label)			
DO ALL HW CONTAINERS HAVE SECURED LIDS?	____	____	____
ARE ALL HWS PROPERLY SEGREGATED ?	____	____	____
ARE ALL HWS REMOVED **DAILY** TO THE HWAP/HWSA ?	____	____	____
PARTS CLEANING MACHINE AVAILABLE ?	____	____	____
PARTS CLEANING MACHINE PROPERLY LABELED ?	____	____	____
COMPRESSED GAS CYLINDERS AVAILABLE ?	____	____	____
GAS CYLINDERS PROPERLY LABELED ?	____	____	____
GAS CYLINDERS PROPERLY SEPARATED & SECURED ?	____	____	____
SECONDARY CONTAINMENT AVAILABLE FOR:			
55 GALLON DRUMS ?	____	____	____
LEAD ACID BATTERIES ?	____	____	____
SPILL CLEAN-UP EQUIPMENT AVAILABLE ?	____	____	____
PERSONAL PROTECTIVE EQUIPMENT AVAILABLE ?	____	____	____
FIRE EXTINGUISHER AVAILABLE ?	____	____	____

Environmental Performance Assessment
Hazardous Materials / Hazardous Waste

STORAGE AREA(S_____BLDG #_____

	YES	NO	N/A
HMSA SECURED AGAINST UNAUTHORIZED THEFT ?	____	____	____
PROPER WARNING SIGNS POSTED AT STORAGE AREA ?			
____ ____ ____			
EMERGENCY PHONE NUMBERS POSTED INSIDE AND OUTSIDE ?	____	____	____
ACCESS FOR QUALIFIED PERSONNEL ONLY ?	____	____	____
HMSA HAS A LEAK PROOF FLOOR ?	____	____	____
SECONDARY CONTAINMENT IS PROVIDED ?	____	____	____
ADEQUATE AISLE SPACE MAINTAINED ?	____	____	____
ARE ALL HM CONTAINERS CLEARLY LABELED ?	____	____	____
ARE ALL HM CONTAINERS IN GOOD CONDITION ?	____	____	____
ARE DRIP PANS/ABSORBENT PLACED UNDER CONTAINERS TO COLLECT DRIPS AND SPILLS ?	____	____	____
ARE ONLY COMPATIBLE HMS STORED TOGETHER ?	____	____	____
EXPIRED MATERIALS AVAILABLE ?	____	____	____
SPILL CLEAN-UP EQUIPMENT AVAILABLE ?	____	____	____
PERSONAL PROTECTIVE EQUIPMENT AVAILABLE ?	____	____	____
FIRE EXTINGUISHER AVAILABLE ?	____	____	____

HW ACCUMULATION POINT BLDG #_____

HWAP SECURED AGAINST UNAUTHORIZED THEFT ?	____	____	____
PROPER WARNING SIGNS POSTED AT THE HWAP ?	____	____	____
EMERGENCY PHONE NUMBERS POSTED INSIDE AND OUTSIDE ?	____	____	____
ACCESS FOR QUALIFIED PERSONNEL ONLY ?	____	____	____
HWAP HAS A LEAK PROOF FLOOR ?	____	____	____
ARE ALL HW CONTAINERS CLEARLY LABELED ?	____	____	____
ARE ALL HW CONTAINERS IN GOOD CONDITION ?	____	____	____
ALL HW STREAMS PROPERLY SEGREGATED ?	____	____	____
ONLY ONE CONTAINER PER WASTE STREAM AVAILABLE ?	____	____	____
HWAP IS NEAT, ORGANIZED, AND CLEAN ?	____	____	____
HW LOG MAINTAINED ?	____	____	____

Environmental Performance Assessment
Hazardous Materials / Hazardous Waste

OUTDOOR STORAGE AREA(S)_____BLDG #_____

COMPRESSED GAS CYLINDERS	YES	NO	N/A
STRORAGE SHED AVAILABLE FOR CYLINDERS ?	____	____	____
PROPER WARNING SIGNS POSTED ?	____	____	____
CYLINDERS PROPERLY SEPARATED ?	____	____	____
CYLINDERS PROPERLY SECURED ?	____	____	____
CYLINDERS PROPERLY PROTECTED FROM WEATHER CONDITIONS ?	____	____	____
NO SMOKING SIGNS AVAILABLE ?	____	____	____

OTHER ITEMS OF INTEREST	YES	NO	N/A
_____	____	____	____
_____	____	____	____
_____	____	____	____
_____	____	____	____
_____	____	____	____
_____	____	____	____
_____	____	____	____
_____	____	____	____
_____	____	____	____
_____	____	____	____
_____	____	____	____
_____	____	____	____
_____	____	____	____

NAME OF ASSESSOR:

_____

Spill Incident Report

Person reporting the spill: _____
Activity/unit: _____Telephone: _____
Date: _____ Time: _____

Location of spill (Installation, Building Number, be specific): _____
_____
Type of pollutant: _____
Approximate quantity: _____

Cause/Source of spill: _____
_____

Is spill continuing? _____ Yes _____ No
If continuing, what is the maximum potential quantity? _____

Check applicable items:
_____ contained in a catch basin or other container
_____ uncontained over pavement, gravel area, or grass
_____ absorbed into ground
_____ draining into sewer system
_____ draining into pond, river

Potential dangers (e.g. Fire, Explosion, Toxic Fumes): _____

Has the Fire & Emergency Services Division been called? _____

Corrective action to eliminate pollution source/remove pollutant: _____
_____
_____

NOTE: Contaminated soil/gravel must be temporarily stored at the Coleman Contaminated Soil Platform, building# 1300. Contaminated soil/gravel will only be accepted if a completed Pollution Incident Report is available at DPW Environmental Management Division. For turn-in appointment contact the DPW Environmental Engineer at 381-7699.

APPENDIX 4

SPILL PREVENTION AND RESPONSE

DEFICIENCIES AND CORRECTIVE ACTION

A database for listing of internal EPAS findings "IPAS TA 5.2" is available at the DPW EMD and is updated on a regular basis and if changes occur. The database includes deficiencies regarding HM, HW and spill prevention, proposed corrective actions and status of corrective actions.

INSTALLATION SPECIFIC APPENDICES

APPENDIX 5	SPRP MAPS AND CORRESPONDING INFORMATION
APPENDIX 6	POL AND HS INVENTORY AND SPILL PREVENTION EQUIPMENT INVENTORY
APPENDIX 7	SLUG PREVENTION PLAN
APPENDIX 8	RED PLAN

APPENDIX 5

SPILL PREVENTION AND RESPONSE PLAN

MAPS AND CORRESPONDING INFORMATION

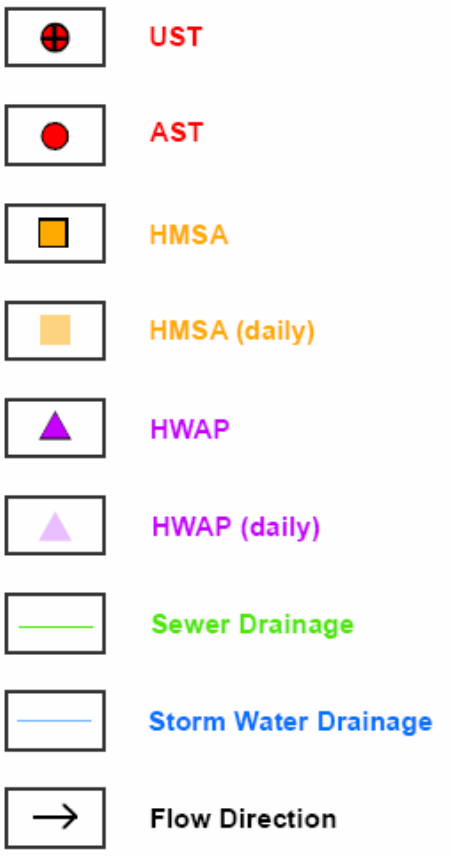
A5.1 SPILL PREVENTION AND RESPONSE PLAN MAPS

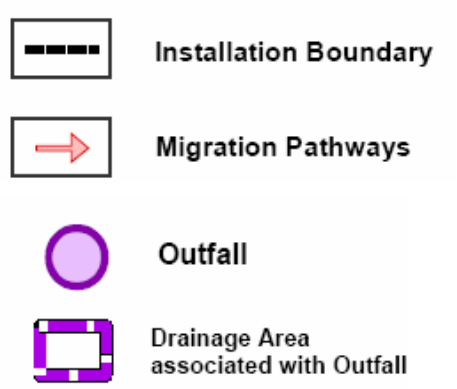
Appendix 5 provides Spill Prevention and Response Plan maps for each of the USAG Mannheim installations. Figure 1 and 2 identify designated water protection areas. Figure 3 through 13 present available electronic mapping of the USAG Mannheim, including existing locations of POL and/or HS storage areas, the storm water and sewer drainage system, and migration pathways. Migration Pathways (Flow Directions) were drawn in the maps for aboveground HM or HW Storage Areas with more than 500 liters maximum storage volume.

Figure 14 through 21 show outfalls and related drainage areas. Outfalls were defined as the point were the storm water drain or the sanitary sewer system leaves the installation. In case of a slug, this can also be the point where the spill is recovered or the drainage is isolated. Related drainage areas were delineated on the maps when the installation has more than one drainage area except for Benjamin Franklin Village, Sullivan Barracks, Funari Barracks, and Coleman Barracks where complete information on storm water and sewer drainage lines was not available. Therefore drainage areas are not delineated for Benjamin Franklin Village, Sullivan Barracks, Funari Barracks, and Coleman Barracks.

Identification Number of HS location

XXXX-X = HS location ID Number. The ID No. is the Facility No. followed by a numeral designation that defines the number of HS locations per building, e.g. 313-1.





The figures included in this Appendix are listed below.

- **Figure 1:** Water Protection Area Käfertal
- **Figure 2:** Water Protection Area Rheinau
- **Figure 3:** Benjamin Franklin Village (GE07P)
- **Figure 4A – 4C:** Coleman Barracks (GE140)
- **Figure 5:** Dannenfels Communication Site (GE15F)
- **Figure 6**: Friedrichsfeld QM Service Center (GE27S)
- **Figure 7:** Funari Barracks (GE28T)
- **Figure 8:** Grünstadt AAFES Facilities (GE32H)
- **Figure 9:** Mannheim Class III (GE52F)
- **Figure 10A** / **10B:** Spinelli Barracks (GE79R)
- **Figure 11A** / **11B:** Sullivan Barracks (GE82J)
- **Figure 12A** / **12B:** Taylor Barracks (GE82C)
- **Figure 13:** Turley Barracks (GE856)
- **Figure 14:** Drainage area – Benjamin Franklin Village (GE07P) / Funari Barracks (GE28T) / Sullivan Barracks (GE82J)
- **Figure 15:** Drainage area – Coleman Barracks (GE140)
- **Figure 16:** Drainage area – Friedrichsfeld QM Service Center (GE27S)
- **Figure 17:** Drainage area – Grünstadt AAFES Facilities (GE32H)
- **Figure 18:** Drainage area – Mannheim Class III (GE52F)

- **Figure 19:** Drainage area – Spinelli Barracks (GE79R)
- **Figure 20:** Drainage area – Taylor Barracks (GE82C)
- **Figure 21:** Drainage area – Turley Barracks (GE856)

A5.2 GENERAL USAG MANNHEIM AND INSTALLATION INFORMATION

The USAG Mannheim is located in three different German states:

Baden Württemberg:

- Benjamin Franklin Village
- Coleman Barracks
- Edigheim Beacon Site
- Friedrichsfeld QM Service Center
- Friedrichsfeld Storage Area
- Funari Barracks
- Mannheim Class III Point
- Spinelli Barracks
- Sullivan Barracks
- Taylor Barracks
- Turley Barracks

Hessen

- Lampertheim Training Area

Rheinland Pfalz

- Grünstadt AAFES Facilities
- Grünstadt Communication Site
- Dannenfels Communication Site

The military and German address for the USAG Mannheim is as follows:

USAG Mannheim Unit 29901, APO AE 09086 Mannheim, Germany	USAG Mannheim Postfach 410204 68276 Mannheim

The overall mission of the USAG Mannheim is to provide service, programs, and other base support activities that enhance the readiness, safety and quality of life for the Mannheim Army personnel and community.

Table A-5.1 provides a prioritized list of critical water and natural resources that need be protected in the event of a spill. Maps of the Water Protections Zones are given in Appendix 5.1 Figure 1 and Figure 2. Maps of Natural Resources are available at the DPW EMD. A description of the adjacent land use of the installations is included in the Integrated Natural Resources Management Plan (INRMP) for Mannheim 2003.

Table A-5.1 Prioritized List of Critical Water and Natural Resources

	Name of Installation	Name of prioritized Critical Water Resources	Name of Critical Natural Resources
1	Benjamin Franklin Village	Water Protection Zone IIIA and IIIB (Figure 1)	-
2	Coleman Barracks	-	Two sand meadow biotopes are mapped as biotopes per §24a NatSchG (see INRMP 2003).
3	Dannenfels Communication Site	-	Dannenfels Communication Site is part of the extensive *Donnersberg* FFH Area (see INRMP 2003).
4	Friedrichsfeld QM Service Center	Water Protection Zone IIIA (Figure 2)	Two sand meadows are mapped as biotopes per §24a NatSchG (see INRMP 2003).
5	Grünstadt Communication Site (no HM/HW area stored or handled at this installation)	-	Installation is located within an area nominated as a "Special Protected Bird Area" within the Natura 2000 System (see INRMP 2003). A calcareous grassland area between Ebertsheim und Grünstadt is nominated as FFH area (maps located at EMD).
6	Lampertheim Training Area	Water Protection Zone IIIA and IIIB (Figure 1)	LTA is located within an area nominated as a "Special Protected Bird Area" within the Natura 2000 System (maps located at EMD). Three areas are suggested as FFH preserve areas (see INRMP 2003).
7	Sullivan Barracks	Water Protection Zone IIIA (Figure 1)	Two sand meadows are mapped as biotopes per §24a NatSchG (see INRMP 2003).
8	Taylor Barracks	Water Protection Zone IIIA (Figure 1)	A wetland area is mapped as biotopes per §24a NatSchG (see INRMP 2003).

APPENDIX 6

POL AND HS INVENTORY AND SPILL PREVENTION EQUIPMENT INVENTORY

Inventory of POL and HS Facilities

Table A-6.1 presents an inventory of units or organizations at the USAG Mannheim, where POL and HS are stored or handled. This inventory must be updated annually or after any significant changes. A regularly updated inventory of units, facilities or organizations where POL and HS are stored or handled is maintained at DPW EMD.

In the following tables, the telephone numbers are given as DSN numbers. The equivalent civilian area codes for the DSN number are given below.

Installation	DSN number	Civilian Area Code
Benjamin Franklin Village	380	0621-730
Funari Barracks	380	0621-730
Spinelli Barracks	384	0621-730
Sullivan Barracks	385	0621-730
Taylor Barracks	381	0621-730
Turley Barracks	380	0621-730
Coleman Barracks	382	0621-779
Friedrichsfeld QM Service Center	375	0621-487

Table A-6.1a. Facilities/Units/Organizations Storing POL and/or HS at Benjamin Franklin Village				
Unit/Organization	**Function or Mission**	**Environmental Compliance Officer/Building Custodian**	**Telephone (DSN)**	**Building Number**
AAFES	Gas Station	Ms. Vanessa Huckfeldt Mrs. Menefee	Civilian: 06221-27315 0621/727-3118	311
AAFES	PX shopping Center	Mr. Bidardel	380-9909	313
Dental Clinic	Dental Clinic	SGT Jones, CPT Belau	380-9311	739
DPW, O&M/ Burger King	Dining facility	Mr. Holecyek / Burger King	381-7240	324
Health Clinic	Health Clinic	SGT Santiago, SPC McGraw	380-4067	739
Shopette	Shopping Center	Not available	Not available	303
DoD, Mannheim High School	School	Mr. Findler, Mr. Malloy	380-9248	286; 746

Table A-6.1b. Facilities/Units/Organizations Storing POL and/or HS at Coleman Barracks				
Unit/Organization	**Function or Mission**	**Environmental Compliance Officer/Building Custodian**	**Telephone (DSN)**	**Building Number**
1-214th Avn Rgmt Mp	Maintenance Activity	CW2 Lloyd, SGT Hoggard	382-4463	57; 57a; 002; 003; 004
HHC, 1-214th Avn Rgmt	Maintenance Activity	SGT Lynn, SPC Cruz	382-5586/5508	87c; 0034; 0033; 1375
D Co, 1-214th Avn Rgmt	Maintenance Activity	SPC Jordan	382-5261	1375, 1375a
18th MP Co	Maintenance Activity	SGT Aredondo, SSG Chasteen	382-5658	56; 56a; 54; 57a
2/502nd Avn Rgmt	Airfield	CW4 Boazman, Mr. Tolberd, Mr. Berger	382-4343/5169 382-5158	4; 4a; 4b; 26; 26a; 106; 1373; 1373b-d
260th Trans Co	Maintenance Activity	SGT Gachet, SPC Harris	382-5102/5796	1345e; 1349; 1349b; 1400a;
28th Trans Bn, BMO	Maintenance Activity	CPT Stephens, SFC Neitzel	382-5111	1344; 1344a

Table A-6.1b. Facilities/Units/Organizations Storing POL and/or HS at Coleman Barracks				
Unit/Organization	**Function or Mission**	**Environmental Compliance Officer/Building Custodian**	**Telephone (DSN)**	**Building Number**
68th Trans Co	Maintenance Activity	SGT Mentry, SPC Wilkins	382-4248	1344; 1400d
6981st CSG	Maintenance Activity	Mr. Kruse, Mr. Ullmer	382-4665/4656	1395; 1395a
69th Trans Co	Maintenance Activity	W01 Kreber, SGT Silva, SGT Schaefer	382-4528	1344; 1400b; 1377
70th Trans Co	Maintenance Activity	SPC Cormier	382-4510	49; 49a; 49b
109th Trans Co	Maintenance Activity	CW2 Tripp, PFC Ireland	382-4102/4366	1344, 1400c
9th MP Detachment	Jailhouse	SSG Freeman, SSG McGuinness	382-4288	1271
AERO Club	Aero Club	Mr. Walmsley	382-4103	1373
Coleman AIC Garage	Maintenance Activity	SSG Wright	382-4315/5360	57; 63a; 78a
Dental Clinic	Dental Clinic	CPT Lanctot, SGT Stephens	382-5262/4203	42
DPW O&M	Fuel Station	Mr. Holeczek	381-5169/4142	1272
DYNCORP, OLR	Maintenance Activity	Mr. Hayes, Mr. Ruis	382-5467/4492	9
Fire & Emergency Services Division	Fire Department	Mr. Ott, Mr. Krug	382-4120	21
Flight Simulator	Flight Simulator	Mr. Kopp	382-5389	10A
HHC, 18th MP Bde	Maintenance Activity	SFC Erickson, SGT Arrendondo	382-5658	54; 56a
MLC (Mannheim Lab Center)	Laboratory	Dr. Hill, Dr. Gaa	382-4357/4192	50; 52; 60
377th Trans Co	Maintenance Activity	SSG Jones, SGT Schluckbier	382-4015	97
51st Trans Co	Maintenance Activity	CW2 Pullins, SPC Vega	382-4013	97
DPW O&M	Heating Plant	Mr. Holeczek	381-7240	2456
AAFES	Industrial Activity	Ms. Vanessa Huckfeldt	Civilian: 06221-27315	1040
CFMO	Industrial Activity	Mr. Treiber	375-3162	1040

Table A-6.1b. Facilities/Units/Organizations Storing POL and/or HS at Coleman Barracks				
Unit/Organization	**Function or Mission**	**Environmental Compliance Officer/Building Custodian**	**Telephone (DSN)**	**Building Number**
DPW O&M	Heating Plant	Mr. Holeczek	381-7240	1043
FFEMA	Industrial Activity	Mr. Schwarz, Mr. Mueller	375-7386/7032	1042; 1042a, 1045
MAN Tech	Industrial Activity	Mr. Martinez / Mr. Holland	375-5338	1041

Table A-6.1e. Facilities/Units/Organizations Storing POL and/or HS at Funari Barracks				
Unit/Organization	**Function or Mission**	**Environmental Compliance Officer/Building Custodian**	**Telephone (DSN)**	**Building Number**
Mannheim NSC	Industrial Activity	Mr. Zielke	380-4555	815

Table A-6.1f. Facilities/Units/Organizations Storing POL and/or HS at Grünstadt AFEES Facilities				
Unit/Organization	**Function or Mission**	**Environmental Compliance Officer/Building Custodian**	**Telephone (Civilian)**	**Building Number**
AAFES, Bakery & Shops	Food Production	Mr. Schmitt, Mr. Paschke	Cell phone 0172-6776933 Civilian 06359-808104/100	3551; 3552; 3553; 3555; 3557; 3568, 3570, 3571

Table A-6.1g. Facilities/Units/Organizations Storing POL and/or HS at Lampertheim Training Area				
Unit/Organization	**Function or Mission**	**Environmental Compliance Officer/Building Custodian**	**Telephone (DSN)**	**Building Number**
Range Control	Training Activity	Mr. Crz, Mr. Hanusch, Mr. Begin	382-5107	Coleman 50

Table A-6.1h. Facilities/Units/Organizations Storing POL and/or HS at Mannheim Class III Point				
Unit/Organization	**Function or Mission**	**Environmental Compliance Officer/Building Custodian**	**Telephone (DSN)**	**Building Number**
DRMO, CSF	Storage facility	Ms. Pouncey	382-4398/4631	121

Table A-6.1i. Facilities/Units/Organizations Storing POL and/or HS at Spinelli Barracks				
Unit/Organization	**Function or Mission**	**Environmental Compliance Officer/Building Custodian**	**Telephone (DSN)**	**Building Number**
11th Trans Co	Maintenance Activity	SPC Jean / SSG Scott	384-5804/6204	1504
2143d US Army Maint Bn	Maintenance Activity	SFC Jenkins, SGT Cheatham	384-6494/6470	1572; 1572a
512th Maint Co	Maintenance Activity	CW3 Pehl, SPC Herbin	384-6069/6126	1577; 1536; 1645; 1852; 1853; 1854a; 1856-1859;
515th Trans Co	Maintenance Activity	SSG Richardson	384-6204	1504; 1504c; 1515b; 1515c
BASOPS-CST	Maintenance Activity	Mr. Zielonka	384/6086	1563; 1595; 1596; 1569a
574th Supply Co	Warehouse	CW2 Miller, Mr. Lehmann, Mr. Reis	384-6087/6146	1560
574th Supply Co	Maintenance Activity	2LT Bagley, SSG Crook, SSG Moralez	384-6106/6071	1570; 1570a; 1523; 1518
7th ARCOM, ESS-X	Maintenance Activity	Mr. Gilmore, Mr. Smallwood, Mr. Daffron	384-6240/6320	1572; 1572b; 1572c
AAFES, PXtra	Shopping Center	Ms. Brenda Hyland	Civilian: 0621-791481	1845
Mannheim Reuse Center	Reuse Center	Mr. Spears	384-6607/6606	1560
SSSC	Supply Center	Mr. McLester, Mr. Graham	384-6809/6808	1536
US NSE	Industrial Activity	SSG Weston	384-6414/6998	1567

Table A-6.1j. Facilities/Units/Organizations Storing POL and/or HS at Sullivan Barracks				
Unit/Organization	**Function or Mission**	**Environmental Compliance Officer/Building Custodian**	**Telephone (DSN)**	**Building Number**
44th Sig Bn, BMO	Maintenance Activity	1LT Murray, CW2 Rivera, SFC Wyatt	385-2482/2786	212; 212a; 219a; 249a+b; 221a; 224a+b
HHC, 7th Sig Bde	Maintenance Activity	SGT McDonald	385-2930/2833	211; 211b
4ASOS	Air Force	SSGT Cardona, SSG Jackson	385-2177/2182	249; 249a+b
Veterinary Clinic	Veterinary Clinic	SPC Keski	385-2312	266
MAN-Tech	Maintenance Activity	Ms. Allen, Mr. Devereaux	385-3332/3063	207; 2088
ALLSTAR	Industrial Activity	Mr. Waldt, Mr. Brengel	Civilian: 0621-32886310/18	225
Sullivan AIC Connex	Installation Coordination	SFC Williams	385-2487	258

Table A-6.1k. Facilities/Units/Organizations Storing POL and/or HS at Taylor Barracks				
Unit/Organization	**Function or Mission**	**Environmental Compliance Officer/Building Custodian**	**Telephone (DSN)**	**Building Number**
72nd Sig Bn, BMO	Maintenance Activity	CPR Longley, CW2 Packer	381-7711/2786	338
HHC, 72nd Sig Bn	Maintenance Activity	SSG Poulter, SGT Richardson	381-7521/8020	338
A Co, 72nd Sig Bn	Maintenance Activity	SGT Maldonado, SPC Richard	381-7748	338; 338a
B Co, 72nd Sig Bn	Maintenance Activity	SFC Green, SPC Moore	381-8670/8594	338; 9423a
C Co, 72nd Sig Bn	Maintenance Activity	SPC Lawrence, SPC Nichols	381-7619/7312	399; 399a
95th MP Bn, BMO	Maintenance Activity	MSG Ball	381-7850	348
HHD, 95th MP Bn	Maintenance Activity	SSG Rivera, SGT Hayes, SFC Fraley	381-7455	348; 348a
272nd MP Co	Maintenance Activity	PFC Wood, SGT Davis	381-8278/8916	348; 348b

Table A-6.1k. Facilities/Units/Organizations Storing POL and/or HS at Taylor Barracks				
Unit/Organization	**Function or Mission**	**Environmental Compliance Officer/Building Custodian**	**Telephone (DSN)**	**Building Number**
560th MP Co	Maintenance Activity	SGT Montgomery	381-7383	348
USAGM PBO	Fuel Station	Property Book Office	381-8625	Coleman: 1396; Friedrichsfeld: 1053; Spinelli: 1559; 1576
MAM (Maintenance Activity Mannheim)	Maintenance Activity	Mr. Riehl, Mr. Schott	381-7603	421; 428; 429; 429k
Auto Skills Center	Maintenance Activity	Mr. Delvalle, Mr. Linschoten	381-7153/8649	426
AAFES Car Care Center	Maintenance Activity and sales area	Ms. Dunbar	381-8246	351
DPW, SORT Center	SORT Center	Mr. Helmling, Mr. Iwuala	381-7678/7680	405b
DPW, Refrigeration Shop	Refrigeration Shop	Mr. Theobald, Mr. Wachowski	381-7645	359
DPW, Entomology Shop	Entomology Shop (Pest Shop)	Mr. Fluhrer, Mr. Schaefer	381-7456/7088	359
DPW, Paint Shop	Paint Shop	Mr. Eschborn	381-8913	359
DPW, Carpenter Shop	Carpenter Shop	Mr. Hamm, Mr. Borgenheimer	381-8805	374
DPW, Self Help Store, Paint Warehouse	Self Help Store	Mr. Gutbrod, Mr. Schuelbe	381-7249/8978	374
DPW, Roads & Grounds	Roads and Grounds	Mr. Fluhrer (temporary)	381-7456/7088	400; 400e

Table A-6.1l. Facilities/Units/Organizations Storing POL and/or HS at Turley Barracks				
Unit/Organization	**Function or Mission**	**Environmental Compliance Officer/Building Custodian**	**Telephone (DSN)**	**Building Number**
HHD, 181st Trans Bn	Maintenance Activity	SPC Lanks	380-9306	463
596th Maint Co	Maintenance Activity	SSG Rist, SGT Perdue, SFC Allen	380-4317/4789	464; 464a, 519

Table A-6.1l. Facilities/Units/Organizations Storing POL and/or HS at Turley Barracks				
Unit/Organization	**Function or Mission**	**Environmental Compliance Officer/Building Custodian**	**Telephone (DSN)**	**Building Number**
UMUC, AIC	Installation Support	SSG Blankenship	380-9513	463; 463a

Facility/Unit/Organization-Specific Information on POL and HS

Table A-6.2 provides specific POL and HS information and available emergency response equipment for each facility, unit, or organization. The locations where POL and/or HS are stored or managed at each facility, unit, or organization are shown on the maps in Appendix 5. The locations are indexed by a map identification number, which is cross-referenced with the information on Table A-6.2. At a minimum a spill kit contains absorbent pads, gloves and booms.

Table A-6.2a. POL and HS Information for Benjamin Franklin Village

Storage/Use Building Number/ Location	Map I.D. Number	General Types of POL and HS	Approx. Quantity/ Capacity [l]	Predicted Spill Flow Direction(1)	Predicted Spill Flow Rate(1) [l/h]	Available Emergency Response Equipment(2)
HMSA (sales area) 303, Shopette	303-1	Cleaner, oil, coolant, spray paint, bleach, lighter fluid, propane gas	600l	Contained within bldg.South	1l/h	Fire extinguisher
HMSA (sales area) 311, AAFES Gas Station	311-1	Oil, anti-freeze, cleaner, spray cans	600l	Contained within bldg.West	4l/h	Fire extinguisher
HMSA 311, AAFES Gas Station	311-2	Oil, anti-freeze, cleaner, spray cans	500l	West	4l/h	Fire extinguisher, absorbent material
Outdoor HWAP 311, AAFES Gas Station	311-3	Empty Plastic Cans, oil cont. solids, old batteries	3,600l	West	N/A	-
4 x UST 311, AAFES Gas Station	311-4	Unleaded fuel	3 x 40,000l + 10,000l	N/A	N/A	Spill kit
HMSA (custodial shed) 313, AAFES, PX	313-1	Detergent, soaps and cleaner, spray cans, paint	100l	East	10l/h	-
HMSA (propane storage) 313, AAFES, PX	313-2	Propane gas cylinders	variable	N/A	N/A	-
HMSA (safety cabinet) 313, AAFES, PX	313-3	Empty	N/A	N/A	N/A	-
HMSA (safety container) 313, AAFES, PX	313-4	Diesel, gasoline, charcoal starter, detergent	100l	South	20l/h	Spill kit

Table A-6.2a. POL and HS Information for Benjamin Franklin Village						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA (Art Supply) 286, MA High School	286-1	Powder paint	50l	Contained within bldg.	N/A	Fire extinguisher
HMSA (Science room) 286, MA High School	286-2	Acids, bases, oil, buffer	100l	Contained within bldg.	N/A	Fire extinguisher
HMSA (shed) 313, AAFES, PX	313-5	Helium gas cylinders (outside shed)	6 cylinders	N/A	5l/h	-
HMSA (photo lab) 313, AAFES, PX	313-6	Used developer	80l	Contained within bldg.	50l/h	Fire extinguisher
Outdoor HWAP 313, AAFES, PX	313-7	Electronic scrap ($10m^3$), used paint, detergents, non-halog. solvents, aerosol cans, bleach, medicine, talc	10,700l	South	200l/h	Spill kit
HMSA (paint shed) 313, AAFES, PX	313c-1	Spray cans, gear oil, anti-freeze, transmission fluid, paint, detergents	1000l	East	2l/h	-
UST 324, DPW O&M	324-1	Gas	10,500l	N/A	N/A	-
HMSA 739, Health & Dental Clinic	739-1	Detergent, medicine, photo chemicals	100l	Contained within bldg.	1l/h	Fire extinguisher, spill kit
HWAP 739, Health Clinic	739-2	Tenside, Fixer, Developer	920l	North	1l/h	Fire extinguisher
Satellite HWAP 739, Health Clinic	739-3	Fixer, developer	120l	Contained within bldg.	1l/h	Spill kit
HMSA 746, MA High School	746-1	Paint, thinner, solvent, denatured alcohol	20 l	Contained within bldg.	N/A	Fire extinguisher
HMSA 746, MA High School	746-2	Acetylene, oxygen gas cylinders, spray cans, developer, cleaner, thinner, paint remover, glue, oil	500l + cylind.	Contained within bldg.	20l/h	Fire extinguisher
HMSA (gas storage) 746, MA High School	746-3	Acetylene, oxygen gas cylinders	10 cylind.	N/A	N/A	-

Key:
(1) If there were a major failure and all of the approximate quantity of material listed were released. Assume a 1-hour spill duration.
(2) A detailed physical description of countermeasures for diversion and containment of spills, including structures and emergency equipment and an outline of the equipment capabilities.

Table A-6.2b. POL and HS Information for Coleman Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA (metal connex) 002, 1-214th Avn Rgmt Mp	002-1	Oxygen gas cylinders	3 cylind.	N/A	N/A	No spill kit since metal connex is secondary contained
HMSA (metal connex) 003, 1-214th Avn Rgmt Mp	003-1	Acetylene gas cylinders	3 cylind.	N/A	N/A	Fire extinguisher
HMSA (metal connex) 004, 1-214th Avn Rgmt Mp	004-1	Lube oil, grease, coolant, brake fluid, rain repellent, paint	600l	West	20l/h	Fire extinguisher, no spill kit since metal connex is secondary contained
HMSA (pharmacy) 4, 2/502nd Avn Rgmt	4-1	POL and various hazardous substances	5,000l	Southeast	200l/h	Fire extinguisher, spill kit
AST 4A, 2/502nd Avn Rgmt	4-2	Waste Fuel	950l	South	N/A	-
HMSA (daily use), Machine Shop 4a, 2/502nd Avn Rgmt	4a-1	Oil, adhesive, acid, alcohol, detergent, thinner, paint, anti-freeze	200l	Contained within bldg.	60l/h	Fire extinguisher, spill kit
HMSA (daily use), Avionics Shop 4a, 2/502nd Avn Rgmt	4a-2	Anticorrosive, silicone, cleaner, isopropyl alcohol	60l	Contained within bldg.	3l/h	Fire extinguisher, spill kit
HMSA (daily use), Electric Shop (Shed outside) 4a, 2/502nd Avn Rgmt	4a-3	Spray cans, cleaner, isopropyl alcohol	80l	Southwest	20l/h	Fire extinguisher, spill kit
HMSA (daily use), Mission Hydraulic Shop 4a, 2/502nd Avn Rgmt	4a-4	Grease, hydraulic fluid, lube oil	40l	Contained within bldg.	1l/h	Fire extinguisher, spill kit
HMSA (daily use), NMP Hydraulic Shop 4a, 2/502nd Avn Rgmt	4a-5	Hydraulic fluid, cleaner, degreaser	30l	Contained within bldg.	2 l/h	Fire extinguisher, spill kit
HMSA (daily use), Mission Engine Shop 4a, 2/502nd Avn Rgmt	4a-6	Spray cans, adhesive, grease, paint, lube oil	50l	Contained within bldg.	2l/h	Fire extinguisher, spill kit

Table A-6.2b. POL and HS Information for Coleman Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA (daily use), NMP Powertrain 4a, 2/502nd Avn Rgmt	4a-7	Grease, alcohol, lube oil, paint, sealing compound, acetone, paint, solvent, adhesive	140l	Contained within bldg.	2l/h	Fire extinguisher, spill kit
UST 4a, 2/502nd Avn Rgmt	4a-8	Used oil	5,000l	N/A	N/A	-
UST 4a, 2/502nd Avn Rgmt	4a-9	Used Oil	5,000l	N/A	N/A	-
5 x AST 4A, 2/502nd Avn Rgmt	4a-10	Waste acid	5 x 2,300l	Southwest	N/A	-
HWAP 4b, 2/502nd Avn Rgmt	4b-1	Used rags, used absorbent, metal cans, plastic cans, grease, aerosol cans, Li batteries, Ni-Cd batteries, Hg batteries	5,410l	Southwest	200l/h	Fire extinguisher, spill kit
AST 8, 2/502nd Avn Rgmt	8-1	Diesel	3,000l	Southeast	N/A	-
AST 8a, D Co,1-214th Avn Rgmt	8a-1	Diesel	1,500l	Northeast	N/A	-
HMSA (pharmacy) 9, DYNCORP, OLR	9-1	Oils, grease, anti-freeze, solvent, thinner, paint, adhesive, sealing compound, cleaner	600l	Southeast	30l/h	Fire extinguisher, spill kit, absorbent material
Indoor HWAP 9, DYNCORP, OLR	9-2	Lab packs	120l	Contained within bldg.	N/A	Fire extinguisher, spill kit
AST 9, DYNCORP, OLR	9-3	Used Oil	995l	Southwest	N/A	-
Satellite HWAP 9, DYNCORP, OLR	9-4	Used batteries, used rags, metal cans, adhesives, plastic cans, aerosols	720l	Contained within bldg.	N/A	Fire extinguisher, spill kit
UST 10A, Flight Simulator	10a-1	Used oil	1,000l	N/A	N/A	-
AST 21, Fire Department	21-1	CO2	3,200l	N/A	N/A	HM spill response container
Outdoor HWAP 21, Fire Department	21-2	Fire extinguishers residue	1,440l	N/A	N/A	HM spill response container
AST 23a, AFN/ DPW O&M	23a-1	Diesel	8,000l	Southeast	N/A	-

Table A-6.2b. POL and HS Information for Coleman Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA (paint storage 1, room 13) 26, 2/502nd Avn Rgmt	26-1	Polyurethane coating, enamel, primer	2,000l	West	20l/h	Automatic fire extinguishing system, absorbent pads
HMSA (paint storage 2, room 14) 26, 2/502nd Avn Rgmt	26-2	Coating, lacquer, enamel, primer, latex paint	2,000l	West	20l/h	Automatic fire extinguishing system, absorbent pads
HMSA (thinner storage, room 15) 26, 2/502nd Avn Rgmt	26-3	Thinner, toluene, isopropyl, paint-remover	1,300l	West	20l/h	Automatic fire extinguishing system, absorbent pads
HWAP (paint shop) 26a, 2/502nd Avn Rgmt	26a-1	Metal cans, CARC paint, paint related waste, tenside, solvent, spray cans	4,500l	South	N/A	Fire extinguisher, spill kit
HMSA (daily use) 42, Dental Clinic	42-1	Alcohols, lighter fluid, liquid acryl, spray cans, propane gas cylinders	10l + cylind.	Contained within bldg.	1l/h	Fire extinguisher
Satellite HWAP 42, Dental Clinic	42-2	Fixer, developer, plastic containers	200l	Contained within bldg.	N/A	Fire extinguisher
HWAP 42, Dental Clinic/ Troop Medical Clinic	42-3	Fixer, developer, biohazardous waste	520l	South	200l/h	Fire extinguisher, spill kit
HMSA 42, Troop Medical Clinic	42-4	Oxygen cylinder, formaldehyde, detergent, alcohol, phenol, silver nitrate, isopropyl alcohol, methanol, ammonia	50l + cylind.	Contained within bldg.	2l/h	Fire extinguisher, spill kit
HMSA (daily use) 49, 70th Trans Co	49-1	Hydraulic fluid, grease, battery water	80l	Contained within bldg.	20l/h	Fire extinguisher, spill kit
UST 49, 70th Trans Co	49-2	Waste oil	5,000l	N/A	N/A	Spill kit
HMSA 49a, 70th Trans Co	49a-1	Hydraulic fluid, lube oil, grease, anti-freeze, battery water, cleaner, deicer, cleaner	1,500l	South	20l/h	Fire extinguisher, spill kit
HWAP 49b, 70th Trans Co	49b-1	Waste oil; POL cont. solids; Cont. metal	5,500l	South	200l/h	Fire extinguisher, spill kit
HMSA (daily use) 50, room 121, MLC	50-1	Various chemicals	30l	Contained within bldg.	25l/h	Fire extinguisher

Table A-6.2b. POL and HS Information for Coleman Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
UST 50, MLC	50-2	Waste Oil	3,000l	N/A	N/A	-
AST 51, 11th Sig Det	51-1	Diesel	5,200l	East	N/A	-
HMSA (sample receiving point) 52, MLC	52-1	All type of POL products and HM to be tested	variable	West	20l/h	Fire extinguisher
HMSA Bldg. 52, room 113A, MLC	52-2	Various chemicals	120l	Contained within bldg.	20l/h	Fire extinguisher
HMSA (daily use) Bldg. 52, room 101/ 101A/ 101C/ other	52-3	Thinner, solvents, oil, corrosive liquids	440l	Contained within bldg.	20l/h	Fire extinguisher, absorbent material
HMSA (HM container) Behind 52, MLC	52-4	Samples for testing	variable	South	20l/h	Fire extinguisher, spill kit
HMSA (metal connex) 54, 18th MP Bde	54-1	Lube oil, anti-freeze, grease, coolant, transmission fluid, fuel spray cans	400l	South	N/A	Fire extinguisher, spill kit
HMSA (daily use) 56, 18th MP Co	56-1	Anti-freeze, lube oil, grease, cycle oil, hydraulic fluid, spray cans, degreaser	100l	Contained within bldg.	20l/h	Fire extinguisher, spill kit
Satellite HWAP 56, 18th MP Co	56-2	Oily solids, oxygen cylinders	240l + cylind.	Contained within bldg.	N/A	Fire extinguisher, spill kit
UST 56, 18th MP Co	56-3	Used Oil	3,000l	N/A	N/A	-
HMSA (corrosive storage) 56a, 18th MP Co	56a-1	Break fluid, silicon, cleaning solvent	70l	North	20l/h	Fire extinguisher, spill kit
UST 57, 1-214th Avn Rgmt Mp	57-1	Used Oil	5,000l	N/A	N/A	-
Satellite HWAP 57, 1-214th Avn Rgmt Mp	57-2	Oily solids (used absorbent, rags, plastic cans)	360l	Contained within bldg.	N/A	Fire extinguisher, spill kit

Table A-6.2b. POL and HS Information for Coleman Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HWAP 57a, 1-214th Avn Rgmt Mp, 18th MP Bde	57a-1	Used absorbent, oil filters, used rags, empty metal cans, empty plastic cans, anti-freeze, aerosol cans	5,760l	West	200l/h	Fire extinguisher expired, spill kit
HWAP 60, MLC	60-1	Waste oil, liquid paint, non-halogenated paint, grease, aerosols, metal containers, non-halogenated solvents	5,740l	Northwest	N/A	Fire extinguisher, absorbent material
HMSA (building) 60, MLC	60-2	Solvent, thinner, oil, various chemicals	800l	North	N/A	Fire extinguisher, spill kit
AST 60, MLC	60-3	Waste oil	995l	North	N/A	-
HMSA 63a, Coleman AIC Garage	63a-1	Fuel, anti-freeze, de-icing fluid, oil, paint, grease	60l	North	20l/h	Fire extinguisher
AST 78A, AIC	78a-1	Anti-freeze	950l	West	N/A	-
HMSA (daily use) 87c, HHC, 1-214th Avn Rgmt	87c-1	Fuel	40l	North	20l/h	Fire extinguisher
HMSA (metal connex) No Bldg. #, HHC, 1-214th Avn Rgmt	87c-2	Grease, lube oil, cleaner, anti-freeze, hydraulic fluid	1,700l	North	20l/h	Fire extinguisher, no spill kit since metal connex is secondary contained
HMSA (metal connex) No Bldg. #, HHC, 1-214th Avn Rgmt	87c-3	Adhesive, methanol, alcohol, paint, cleaning compound, de-icing fluid	200l	South	20l/h	Fire extinguisher, no spill kit since metal connex is secondary contained
HMSA (metal connex) No Bldg. #, HHC, 1-214th Avn Rgmt	87c-4	Grease	20l	South	N/A	Fire extinguisher, no spill kit since metal connex is secondary contained
4 x AST 94, HHC, 1-214th Avn Rgmt	94-1	Waste Fuel	4 x 950l	North	N/A	Spill kit
HWAP (daily) 94, HHC, 1-214th Avn Rgmt	94-2	POL contaminated solids	120l	N/A	N/A	Absorbent material

Table A-6.2b. POL and HS Information for Coleman Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA (POL storage) 97, 51st + 377th Trans Co	97-1	Lube/engine oil, coolant, transmission fluid, solvent, paint, grease	13,500l	West	208l/h	Automatic fire extinguishing system
HMSA (daily use) 97, 51st Trans Co	97-2	Lube oil, acetylene gas cylinders, anti-freeze, coolant, hydraulic fluid, spray cans, batteries	700l	West	200l/h	Fire extinguisher, spill kit
Satellite HWAP 97, 51st Trans Co	97-3	Used absorbent material, used rags, used oil filters	360l	Contained within bldg.	N/A	Fire extinguisher, spill kit
Satellite HWAP 97, 377th Trans Co	97-4	Dirty rags, used absorbent material, used oil filters	480l	Contained within bldg.	N/A	Fire extinguisher, spill kit
HMSA (daily use) 97, 377th Trans Co	97-5	Battery water, cleaner, engine/gear/lube oil, hydraulic fluid, anti-freeze, solvents, grease	500l	West	20l/h	Fire extinguisher, spill kit
HMSA (battery storage) 97, 377th Trans Co	97-6	New & old battery storage	N/A	East	N/A	-
UST 97, 51st + 377th Trans Co	97-7	Waste oil	5,000l	N/A	N/A	-
UST 97, 51st / 377th Trans Co	97-8	Anti-freeze	3,000l	N/A	N/A	-
HMSA (daily use), blade shop 106, 2/502nd Avn Rgmt	106-1	Sealing compound, paint, alcohol, adhesive, cleaning compound	150l	Contained within bldg.	10l/h	Fire extinguisher
HMSA (daily use) 1271, 9th MP Detachment	1271-1	Paint, spray cans, adhesive, thinner, solvent	120l	Contained within bldg.	5l/h	Fire extinguisher
HMSA (Outdoor safety cabinet) 1271, 9th MP Detachment	1271-2	Fuel, motor oil lube oil, transmission fluid	100l	North	10l/h	No spill kit since metal connex is secondary contained

Table A-6.2b. POL and HS Information for Coleman Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HWAP 1271, 9th MP Detachment	1271-3	Aerosols, POL cont. solids, empty cans, paint related waste, metal containers	1,840l	North	N/A	-
UST 1272, DPW O&M	1272-1	Diesel	5,000l	N/A	N/A	-
UST (wash rack) 1305, DPW O&M	1305-1	Waste oil	3,000l	N/A	N/A	-
HMSA (daily use) 1344, 109th Trans Co	1344-1	Lube oil, grease, hydraulic fluid, battery water, solvent	120l	Contained within bldg.	20l/h	Fire extinguisher, spill kit
HMSA (daily use) 1344, 69th Trans Co	1344-2	Lube/ engine/ penetrating oil, grease, hydraulic fluid, brake fluid silicone, battery water, spray paint, cleaner, corrosion inhibitor	460l	Contained within bldg.	200l/h	Fire extinguisher
HMSA (daily use) 1344, 68th Trans Co	1344-3	Fuel, anti-freeze, lube oil, hydraulic fluid, battery water, spray cans	350l	Contained within bldg.	200l/h	Fire extinguisher, spill kit
HMSA (daily use) 1344, 28th Trans Bn	1344-4	Lube oil, transmission fluid, engine oil	8x 5 gal	Contained within bldg.	20l/h	Fire extinguisher, spill kit
Satellite HWAP 1344, 28th Trans Bn	1344-5	Oily solids	480l	Contained within bldg.	N/A	Fire extinguisher, spill kit, absorbent material
HWAP 1344a, 28th Trans Bn, BMO	1344a-1	Anti-freeze, metal containers, oily solids	2,835l	South	200l/h	Fire extinguisher, spill kit, absorbent material
UST 1344a, 28th Trans Bn	1344a-2	Used Oil	5,000l	N/A	N/A	-
AST 1344a, 28th Trans Bn	1344a-3	Anti-freeze	3,000l	South	N/A	-
HMSA 1345e, 260th Trans Co	1345e-1	Corrosive cleaner, battery fluid	285l	South	20l/h	Fire extinguisher, spill kit, absorbent material
HMSA (daily use) 1349, 260th Trans Co	1349-1	Anti-freeze, lube oil, aerosol cans, grease	60l	Contained within bldg.	20l/h	Fire extinguisher, spill kit, absorbent material
UST 1349, 26th Trans Co	1349-2	Waste oil	3,000l	N/A	N/A	-

Table A-6.2b. POL and HS Information for Coleman Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA 1349, 260th Trans Co	1349-3	Vehicle batteries, acetylene/ oxygen compressed gas cylinder	6 cylinders, 15 batteries	N/A	N/A	Fire extinguisher
HWAP 1349a, 260th Trans Co	1349a-1	Aerosols, grease, metal containers, plastic containers, POL cont. solids, filters, anti-freeze, greasy metal, waste fuel, solvent	7,500l	East	200l/h	Fire extinguisher, spill kit, absorbent material
HMSA (daily use) 1373, 2/502nd Avn Rgmt	1373-1	Degreaser, motor oil, grease, battery acid, spray cans, anti-freeze, lube oil, isopropanol	200l	Contained within bldg.	20l/h	Fire extinguisher, spill kit
HMSA (oxygen storage) 1373d, 2/502nd Avn Rgmt	1373-2	Oxygen gas cylinders	10 cylind.	N/A	N/A	-
AST 1373, AERO Club	1373-3	Fuel	7,000l	South	N/A	-
AST 1373, 2/502nd Avn Reg	1373-4	Waste Fuel	950l	South	N/A	-
HMSA 1373b, 2/502nd Avn Rgmt	1373b-1	Sodium dichromate, magnesium	40l	South	200l/h	Fire extinguisher, spill kit
HMSA 1373c, 2/502nd Avn Rgmt	1373c-1	Acids	100l	South	200l/h	-
HMSA Without Bldg #, 2/502nd Avn Rgmt	1373c-2	Lube oil, solvent, anti-freeze	250l	South	40l/h	Spill kit, fire extinguisher
Satellite HWAP 1373T, 2/502nd Avn Rgmt	1373T-1	Oily solids	480l	Contained within bldg.	N/A	Fire extinguisher, spill kit

Table A-6.2b. POL and HS Information for Coleman Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
2 x AST 1373T, 2/502nd Avn Rgmt	1373T-2	Waste fuel	2 x 950l	Southwest	N/A	-
HMSA (daily use) 1373T, 2/502nd Avn Rgmt	1373T-3	Cleaner, degreaser, lube oil	120l	Contained within bldg.	1l/h	Fire extinguisher, spill kit
UST 1373T, 2/502nd Avn Reg	1373T-4	Waste fuel	3,000l	N/A	N/A	-
HMSA (gas cylinder storage) 1373T, 2/502nd Avn Rgmt	1373T-5	Nitrogen, argon, acetylene, propane gas cylinders	20 cylind.	N/A	N/A	-
HMSA (daily use) 1375, D Co,1-214th Avn Rgmt	1375-1	Paint, solvent, adhesives, sealing compounds, POL products, lubricants	200l	Contained within bldg.	20l/h	Fire extinguisher, spill kit
3 x AST 1375, D Co, 1/214th Avn Regt	1375-2	2 x Waste Fuel + 1 x Used Oil	2 x 950l + 1 x 3,000l	Southwest	N/A	-
HMSA (2 metal connexes) 1375 rub, D Co,1-214th Avn Rgmt	1375rub-1	Paint, solvent, adhesives, sealing compounds, POL products, lubricants, oxygen/ nitrogen gas cylinders	1,000l	Southeast	20l/h	Fire extinguisher, spill kit
HWAP 1375 rub, D Co,1-214th Avn Rgmt	1375rub-2	Used absorbent, oil filters, used rags, empty metal cans, empty plastic cans, aerosol cans	5,560l	Southeast	N/A	Fire extinguisher, spill kit
HMSA (daily use) 1395, 6981st CSG	1395-1	Lube oil, hydraulic fluid, grease, acetone, anti-freeze, alcohol, paint, adhesive, thinner, spray cans	180l	Contained within bldg.	20l/h	Fire extinguisher, spill kit
UST 1395, 6891st CSG	1395-2	Used Oil	3,000l	N/A	N/A	Spill kit
Satellite HWAP 1395, 6981st CSG	1395-3	Used anti-freeze, used oil filters	340l	Contained within bldg.	200l/h	Fire extinguisher, spill kit
HMSA (daily use) 1395, 11th Detach	1395-4	Oil, grease, anti-freeze, cleaner	180l	Contained within bldg.	20l/h	Fire extinguisher, spill kit

Table A-6.2b. POL and HS Information for Coleman Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
Satellite HWAP 1395, 11th Detach	1395-5	Used anti-freeze, used absorbent, used rags, used oil filters, empty metal cans	480l	Contained within bldg.	200l/h	Fire extinguisher, spill kit
HMSA (garage) 1395a, 6981st CSG	1395a-1	Fuel, lube oil, coolant, anti-freeze, solvent, grease	600l	North	20l/h	Fire extinguisher, absorbent material, spill kit
5 x UST 1396, USAGM PBO	1396-1	4 x JP8 + 1 x Unleaded	5 x 80,000l	N/A	N/A	Fire extinguisher, spill kit
HMSA 1400a, 260th Trans Co	1400a-1	Methanol, cleaning agent, lube oil, grease, anti-freeze, aerosol cans,	740l	South	20l/h	Fire extinguisher, spill kit, absorbent material
HMSA 1400b, 69th Trans Co	1400b-1	Lube/ engine/ penetrating oil, grease, hydraulic fluid, brake fluid, silicone, battery water, spray paint, cleaner, corrosion inhibitor	2,500l	West	20l/h	Fire extinguisher, spill kit
HMSA 1400c, 109th Trans Co	1400c-1	Lube oil, anti-freeze, battery water, grease, brake fluid, hydraulic fluid	3,000l	West	200l/h	Fire extinguisher, absorbent material
HMSA 1400d, 68th Trans Co	1400d-1	Lube/ gear/ penetrating oil, Transmission fluid, anti-freeze, grease, acetylene, oxygen, ether	3,400l + 13 cylind.	West	20l/h	Fire extinguisher, spill kit

Key:
(1) If there were a major failure and all of the approximate quantity of material listed were released. Assume a 1-hour spill duration.
(2) A detailed physical description of countermeasures for diversion and containment of spills, including structures and emergency equipment and an outline of the equipment capabilities.

Table A-6.2c. POL and HS Information for Dannenfels Communication Site						
Storage/Use Location/Building Number	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill [1] Flow Direction**	**Predicted(1) Spill Flow Rate [l/h]**	**Available Emergency Response Equipment (2)**
2 x AST 2456, ITT	2456-1	Diesel	2 x 1,000l	East	N/A	-

Table A-6.2c. POL and HS Information for Dannenfels Communication Site						
Storage/Use Location/Building Number	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill [1] Flow Direction**	**Predicted[(1)] Spill Flow Rate [l/h]**	**Available Emergency Response Equipment [(2)]**
2 x UST 2456, DPW O&M	2456-2	Heating Oil	2 x 25,000l	N/A	N/A	-
Key: (1) If there were a major failure and all of the approximate quantity of material listed were released. Assume a 1-hour spill duration. (2) A detailed physical description of countermeasures for diversion and containment of spills, including structures and emergency equipment and an outline of the equipment capabilities.						

Table A-6.2d. POL and HS Information for Friedrichsfeld QM Service Center						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction[(1)]**	**Predicted Spill Flow Rate[(1)] [l/h]**	**Available Emergency Response Equipment[(2)]**
HMSA 1040, AIC	1040-1	Gasoline, propane gas cylinders	30l + cylind.	South	10l/h	Fire extinguisher
HMSA (daily use) 1040, CFMO	1040-2	Paint, spray cans, oil, alcohol	30l	Contained within bldg.	20l/h	Fire extinguisher
HMSA (metal connex) 1041, AMC	1041-1	Refrigerant cylinders, oil	100l	Northeast	1l/h	-
AST 1041, AMC	1041-2	Used oil	950l	Northeast	N/A	-
HMSA (daily use) 1041, AMC	1041-3	Propane fuel, paint, gasoline, oil	100l	Contained within bldg.	20l/h	Fire extinguisher
HMSA (daily use) 1042, FFEMA	1042-1	Spray cans, oil, adhesive, cleaner, paint, thinner, solvent, coolant, grease	450l	Contained within bldg.	40l/h	Fire extinguisher, absorbent material
Satellite HWAP 1042, FFEMA	1042-2	Oily solids (used rags)	120l	Contained within bldg.	N/A	Fire extinguisher, absorbent material
HWAP 1042a, all Friedrichsfeld activities	1042a-1	Metal Cans, paint, paint related materials, solvent	3,700l	South	1,000l/h	Fire extinguisher, spill kit

Table A-6.2d. POL and HS Information for Friedrichsfeld QM Service Center						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
AST 1043, DPW O&M	1043-1	Diesel	8,000l	Northeast	N/A	-
HMSA (paint shed) 1045, FFEMA	1045-1	Paint, thinner, cleaner, adhesive, oil, solvent	2000l	South	20l/h	Fire extinguisher, spill kit, absorbent material
2 x UST 1053, USAGM PBO	1053-1	Unleaded + JP8 (Diesel)	2 x 10,000l	N/A	N/A	Fire extinguisher, spill kit

Key:
(1) If there were a major failure and all of the approximate quantity of material listed were released. Assume a 1-hour spill duration.
(2) A detailed physical description of countermeasures for diversion and containment of spills, including structures and emergency equipment and an outline of the equipment capabilities.

Table A-6.2e. POL and HS Information for Funari Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
UST 815, Mannheim NSC	815-1	Diesel	10,000l	N/A	N/A	-
2 x AST 817, 5th Sig Cmd	817-1	Diesel	2 x 1,500l	South	N/A	-

Key:
(1) If there were a major failure and all of the approximate quantity of material listed were released. Assume a 1-hour spill duration.
(2) A detailed physical description of countermeasures for diversion and containment of spills, including structures and emergency equipment and an outline of the equipment capabilities.

Table A-6.2f. POL and HS Information for Grünstadt						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA (oil storage for refrigeration plant) 3551, AAFES	3551-1	Compressor oil, ammonia, refrigerant cylinders	5,500l 50 cylind.	Southwest	200l/h	Fire extinguisher, absorbent material
HMSA (garage) 3552, AAFES – carpentry shop	3552-1	Paint, anti-freeze, cleaner	190l	South	5 l/h	Absorbent material
HMSA (daily use) 3553, AAFES – carpentry shop	3553-1	Paint, adhesive, spray cans, oil, anti-freeze, thinner	220l	Contained within bldg.	22 l/h	Fire extinguisher, absorbent material
HMSA (metal connex) 3555, AAFES – Bakery Maintenance	3555-1	Oils, cleaner	700l	Northeast	16 gal/h	Fire extinguisher, absorbent material
HMSA (daily use) 3555, AAFES – Bakery Maintenance	3555-2	Oil, spray cans, paint, grease	40l	Contained within bldg.	10l/h	Fire extinguisher, absorbent material
Satellite HWAP 3555, AAFES – Bakery Maintenance	3555-3	Oily solids (rags, aerosols)	240l	Contained within bldg.	N/A	Fire extinguisher, absorbent material
HMSA (daily use) 3555, AAFES – Bakery	3555-4	Cleaning compound disinfectant	700l	Contained within bldg. (basement)	200l/h	Fire extinguisher
2 x AST 3555, AAFES – Ice Cream Warehouse	3555-5	Acids + Lye	2 x 7,700l	Contained within bldg. (basement)	N/A	Absorbent material
HMSA 3555, AAFES – Ice Cream Warehouse	3555-6	Disinfectant, cleaner	13,600lkg	Contained within bldg. (basement)	N/A	Absorbent material
HMSA (daily use) 3555, AAFES – Stock room	3555-7	Oil, acetone, adhesive, spray can, paint, florin	180l	Contained within bldg. (basement)	15l/h	Fire extinguisher

Table A-6.2f. POL and HS Information for Grünstadt						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA (POL storage room & daily use) 3555, AAFES – E&F Workshop	3555-8	Cleaner, adhesive, acids, anti-freeze, oil, grease	1000l	Contained within bldg. (basement)	20l/h	Fire extinguisher, absorbent material
Satellite HWAP 3555, AAFES – E&F Branch	3555-9	Used filters, aerosol cans, rags, batteries	390l	Contained within bldg.	N/A	Fire extinguisher
AST 3555, AAFES	3555-10	Used Oil	950l	Northeast	N/A	-
HMSA (paint storage room) 3555, AAFES – E&F Workshop	3555-11	Paint, thinner	190l	Contained within bldg.	6 l/h	Fire extinguisher, absorbent material
HWAP 3556, AAFES	3556-1	Fluorescent light tubes	1200l	N/A	N/A	-
HMSA (daily use) 3559, AAFES – Quality Assurance	3559-1	Acids, solvents, cleaner, chemicals	200l	Contained within bldg.	1l/h	Fire extinguisher, mercury spill kit, neutralization material
Outdoor HWAP 3559A, AAFES	3559a-1	Empty gas cylinders, oil filters, used rags, used absorbent, empty plastic containers, empty metal containers, dry cell batteries, aerosols, used anti-freeze, liquid paint, batteries	8,000l	North	N/A	Spill kit
AST 3567, AAFES – Shops	3567-1	Used Oil	3,500l	Southwest	N/A	-
HMSA 3568, AAFES – Gas Station	3568-2	Motor oil, anti-freeze	320l	Southeast	200l/h	Fire extinguisher, absorbent material
2 x UST 3568, AAFES – Gas Station	3568-1	Diesel + unleaded	N/A	N/A	N/A	Fire extinguisher, spill kit
UST 3570, AAFES – Motorpool	3570-1	Used Oil	N/A	N/A	N/A	-

Table A-6.2f. POL and HS Information for Grünstadt						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA (daily use) 3570, AAFES – Motorpool	3570-2	Paint, oil	230l	Contained within bldg.	200l/h	Fire extinguisher, spill kit
Satellite HWAP 3570, AAFES – Motorpool	3570-3	Oily solids (rags)	120l	Contained within bldg.	N/A	Fire extinguisher, spill kit
HMSA (POL garage) Next to 3570, AAFES – Motorpool	3570-4	Lube oil	350l	East	200l/h	Fire extinguisher, spill kit
HS cage (gas cylinder storage) 3570, AAFES – Motorpool	3570-5	Propane gas cylinders	25 cylinders	N/A	N/A	-

Key:
(1) If there were a major failure and all of the approximate quantity of material listed were released. Assume a 1-hour spill duration.
(2) A detailed physical description of countermeasures for diversion and containment of spills, including structures and emergency equipment and an outline of the equipment capabilities.

Table A-6.2g. POL and HS Information for Lampertheim Training Area						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
Handling of HM Shooting range, Range Control	No map	Gasoline	N/A	N/A	N/A	Absorbent material

Key:
(1) If there were a major failure and all of the approximate quantity of material listed were released. Assume a 1-hour spill duration.
(2) A detailed physical description of countermeasures for diversion and containment of spills, including structures and emergency equipment and an outline of the equipment capabilities.

Table A-6.2h. POL and HS Information for Mannheim Class III Point						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
UST 119a, DPW O&M	119a-1	Waste Water	N/A	N/A	N/A	-
AST 119a, DPW O&M	119a-2	Gas	1,000l	N/A	N/A	-
AST 119a, DPW O&M	119a-3	Diesel	4,000l	South	N/A	Fire extinguisher
HMSA + HWAP 120, DRMO – CSF	120-1	HM: epoxy primer coating, enamel, sealing compound, remover, wax, batteries HW: various	4,000l	Contained within bldg.	200l/h	Fire extinguisher, spill kit

Key:
(1) If there were a major failure and all of the approximate quantity of material listed were released. Assume a 1-hour spill duration.
(2) A detailed physical description of countermeasures for diversion and containment of spills, including structures and emergency equipment and an outline of the equipment capabilities.

Table A-6.2i. POL and HS Information for Spinelli Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA (daily use) 1504, 515th Trans Co	1504-1	Lube oil, anti-freeze	1,500l	East	200l/h	Fire extinguisher, spill kit
UST 1504, 515th Trans Co	1504-2	Waste Oil	5,000l	N/A	N/A	Spill kit
Satellite HWAP 1504, 515th Trans Co	1504-3	Oily Solids	120l	Contained within bldg.	N/A	Fire extinguisher, spill kit
2 x AST No Bldg. # (tanker yard), 515th Trans Co	1504-4	Waste Fuel	2 x 3,000l	West	N/A	-

Table A-6.2i. POL and HS Information for Spinelli Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HWAP 1504c, 515th Trans Co	1504c-1	Used absorbent, oil filters, used rags, empty metal cans, empty plastic cans, grease, anti-freeze, aerosol cans	6,800l	East	445l/h	Fire extinguisher, spill kit
HMSA (POL storage) 1515b, 515th Trans Co	1515b-1	B: Battery acids, alcohol	B: 200l	North	20l/h	Fire extinguisher, spill kit
HMSA (corrosive storage) 1515c, 515th Trans Co	1515c-1	Engine oil, lube oil, grease	1,100 l	North	20l/h	Fire extinguisher, spill kit
HMSA (daily use) 1518, 574th Supply Co	1518-1	Data not available due to troop deployment	Not available	Contained within bldg.	Not available	Not available
HMSA (sales area) 1536, SSSC	1536-1	No HM currently stored (temporary handling of HM)	N/A	Contained within bldg.	N/A	Fire extinguisher
UST 1559, USAGM PBO, Fuel Station	1559-1	JP8	50,000l	N/A	N/A	Fire extinguisher, spill kit
HMSA 1560, Mannheim Reuse Center	1560-1	Lube oil, batteries, alcohol, cleaner, turpentine, paint, anticorrosive, adhesive, grease	1,200l	South	200l/h	Fire extinguisher, spill kit
HMSA (Warehouse) 1560, 574th Supply Co	1560-2	Various POL products and HM	5,000l	Northwest	200l/h	Fire extinguisher, spill kit
HMSA (daily use) 1563, BASOPS-CST	1563-1	Thinner, detergent, grease, oil, gasoline	300l	Contained within bldg.	30l/h	Fire extinguisher, absorbent material
Satellite HWAP 1563, BASOPS-CST	1563-2	Oily solids (used absorbent, rags, metal cans, oil filter), aerosol cans, used anti-freeze	740l	Contained within bldg.	200l/h	Fire extinguisher, absorbent material
UST 1563, BASOPS-CST	1563-3	Used Oil	3,000l	N/A	N/A	-
HMSA (daily use) 1563, BASOPS-CST	1563-4	Oil, anti-freeze, cleaner	900l	South	200l/h	Fire extinguisher, absorbent material

Table A-6.2i. POL and HS Information for Spinelli Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA (battery storage) 1563, BASOPS-CST	1563-5	Battery acid, lead acid batteries	20l	Contained within bldg.	1l/h	Absorbent pads
UST 1567, US NSE	1567-1	Used Oil	5,000l	N/A	N/A	-
HWAP 1569a, 51st Maint Bn, 2143rd Maint Bn, BASOPS-CST, 7th ARCOM ESS-X	1569a-1	Used rags, oil filters, used absorbent, metal cans, plastic cans, aerosol cans	5,560l	West	N/A	Fire extinguisher, spill kit, absorbent material
HMSA (daily use) 1570, 574th Supply Co	1570-1	Not available due to troop deployment	Not available	Contained within bldg.	Not available	Absorbent material, spill kit
Satellite HWAP 1570, 574th Supply Co	1570-2	Oily solids (used absorbent material, used rags, empty oil cans, used batteries, used filters)	600l	Contained within bldg.	N/A	Fire extinguisher, absorbent material, spill kit
2 x AST 1570, 574th Supply Co	1570-3	Anti-freeze + waste fuel	2 x 950l	West	N/A	-
HMSA (concrete garage) 1570a, 574th Supply Co	1570a-1	Oil, cleaner, battery water, grease, anti-freeze	1,200l	West	20l/h	Fire extinguisher, spill kit
HMSA (daily use) 1572, 7th ARCOM, ESS-X	1572-1	Thinner, paint, spray cans, cleaner, solvent, adhesive, break fluid, grease, lube oil, coolant	320l	Contained within bldg.	200l/h	Fire extinguisher, spill kit
HMSA (battery storage room) 1572, 7th ARCOM, ESS-X	1572-2	Battery acid, lead-acid batteries	N/A	West	2l/h	Spill kit
HMSA (daily use) 1572, 2143d US Army Maint Bn	1572-3	Anti-freeze, lube oil, cleaner, grease	80l	Contained within bldg.	20l/h	Fire extinguisher, spill kit, absorbent material

Table A-6.2i. POL and HS Information for Spinelli Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
Satellite HWAP 1572, 7th ARCOM, ESS-X	1572-4	Oily solids (oily filters, fuel filters, used absorbent material, oily cans), break shoes, brake pads	6 x 120l	Contained within bldg.	N/A	Fire extinguisher, spill kit, absorbent material
Satellite HWAP 1572, 2143d US Army Mnt	1572-5	Oily solids (oil filters, used absorbent material, used rags)	3 x 120l	Contained within bldg.	N/A	Fire extinguisher, spill kit, absorbent material
AST 1572, 2143d US Army Mnt	1572-6	Waste fuel	950l	West	N/A	-
HMSA (concrete garage) 1572a, 2143d US Army Maint Bn	1572a-1	Lube oil, cleaner, spray cans, grease, battery water, brake fluid, fuel	800l	West	200l/h	Fire extinguisher, spill kit, absorbent material
4 x AST in HM storage building 1572b, 7th ARCOM, ESS-X	1572b-1	Used oil, engine oil, hydraulic oil, transmission oil, grease	2,000l + 3 x 1,300l + 200l	West	N/A	Fire extinguisher, absorbent material
HMSA 1572c, 7th ARCOM, ESS-X	1572c-1	Lube oil, hydraulic fluid, grease, anti-freeze, cleaner, brake fluid, solvent	400l	West	200l/h	Fire extinguisher, spill kit, absorbent material
2 x UST 1576, USAGM PBO, Gas Station	1576-1	Unleaded fuel	2 x 25,000l	N/A	N/A	Fire extinguisher, spill kit
HMSA (daily use) 1577, 512th Maint Co	1577-1	Oil, anti-freeze, cleaner, grease, solvent, battery water	300l	Contained within bldg.	20l/h	Not available due to troop deployment
2 x UST 1577, 512th Maint Co	1577-2	Used Oil	2 x 3,000l	N/A	N/A	Not available due to troop deployment
HMSA (concrete garage) 1595, BASOPS-CST	1595-1	Battery water, oil	500l	West	200l/h	Fire extinguisher, absorbent material, broom, shuffle
HMSA (concrete garage) 1596, BASOPS-CST	1596-1	Oil, cleaner, transmission fluid	1,100l	West	200l/h	Fire extinguisher, absorbent material, broom, shuffle
AST 1609c, US NSE	1609c-1	Waste fuel	950l	North	N/A	-

Table A-6.2i. POL and HS Information for Spinelli Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
AST No Bldg. # (supply yard), 574th Trans Co	1644-1	Waste fuel	950l	South	N/A	-
HMSA (paint storage) 1645, 512th Maint Co	1645-1	Thinner, paint, CARC paint, grease, solvent	850l	East	200l/h	Fire extinguisher, Spill kit
HMSA (gas cylinder storage) 1645, 512th Maint Co	1645-2	Oxygen/ acetylene cylinders	Not available	N/A	N/A	-
HMSA (metal connex & safety container) 1845, AAFES, Toyland	1845-1	Propane cylinders, gasoline, charcoal starter, charcoal lighter fluid, torch fuel	150l + 20 cylind.	South	20l/h	No spill kit since metal connex and safety container are secondary contained
HMSA (battery storage) 1852, 512th Maint Co	1852-1	Lead-acid batteries	N/A	South	N/A	-
UST 1852, 512th Maint Co	1852-2	Used oil	7,000l	N/A	N/A	-
HMSA (daily use) 1852, 512th Maint Co	1852-3	Grease, hydraulic fluid, anti-freeze	80l	Contained within bldg.	20l/h	Fire extinguisher, spill kit
Satellite HWAP 1852, 512th Maint Co	1852-4	Oily solids	480l	Contained within bldg.	N/A	Fire extinguisher, spill kit
2 x UST 1852, 512th Maint Co	1852-5	Used oil + anti-freeze	10,000l + 7,000l	N/A	N/A	-
HMSA (daily use) 1852, 512th Maint Co	1852-6	Spray cans, paint	10l	Contained within bldg.	1 l/h	Fire extinguisher, spill kit
UST 1853, 512th Maint Co	1853-1	Used oil	5,000l	N/A	N/A	-
HWAP 1854a, 512th Maint Co	1854a-1	Rags, filters, absorbent, metal cans, plastic cans, solvent, paint, paint related materials, empty paint cans, aerosol cans	9,000l	South	1000l/h	Fire extinguisher, spill kit
UST 1856, 512th Maint Co	1856-1	Used oil	5,000l	N/A	N/A	-
HMSA (daily use) 1857, 512th Maint Co	1857-1	Not available due to troop deployment	Not available.	Not available	N/A	Not available

Table A-6.2i. POL and HS Information for Spinelli Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
UST (temporary closed) 1857, 512th Maint Co	1857-2	Used oil	5,000l	N/A	N/A	-
2 x UST (removal requested) 1858, 512th Maint Co	1858-1	Used oil	3,000l + 5,000l	N/A	N/A	-
HMSA 1859, 512th Maint Co	1859-1	Lube oil, grease, hydraulic fluid, anti-freeze, gasoline, fuel, engine oil	3,500l	East	200l/h	Fire extinguisher, spill kit
UST 1859, 512th Maint Co	1859-2	Used oil	7,000l	N/A	N/A	-

Key:
(1) If there were a major failure and all of the approximate quantity of material listed were released. Assume a 1-hour spill duration.
(2) A detailed physical description of countermeasures for diversion and containment of spills, including structures and emergency equipment and an outline of the equipment capabilities.

Table A-6.2j. POL and HS Information for Sullivan Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA (shipping & receiving) 208, OPMAS-E	208-1	Alcohol, adhesive, paint, turpentine, engine oil	110l	Contained within bldg.	20l/h	Fire extinguisher, absorbent material
HMSA (daily use) 208, OPMAS-E	208-2	Grease, rust remover, paint, spray cans, propane fuel, car polish, motor oil, turpentine, anti-freeze, technical alcohol, solvent	150l	Contained within bldg.	20l/h	Fire extinguisher, absorbent material
HMSA (daily use) 211, HHC, 7th Sig Bde	211-1	Paint, lube oil, grease, alcohol, corrosion inhibitor, solvent, sealing compound, spray cans, anti-freeze, battery water	300l	Contained within bldg.	20l/h	Fire extinguisher, absorbent material

Table A-6.2j. POL and HS Information for Sullivan Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
Satellite HWAP 211, HHC, 7th Sig Bde	211-2	Oily solids (used filters, used absorbent, empty oil cans, used rags)	4 x 120l	Contained within bldg.	N/A	Fire extinguisher, absorbent material
2 x AST 211, HHC, 7th Sig Bde	211-3	Anti-freeze, waste fuel	2 x 950l	South	N/A	Fire extinguisher, absorbent material
HMSA (garage) 211b, HHC, 7th Sig Bde	211b-1	Spray cans, lube oil, hydraulic fluid, transmission oil, grease, solvent	550 l	South	20l/h	Fire extinguisher, absorbent material
HMSA (daily use) 212, HHC & C Co, 44th Sig Bn	212-1	Cleaner, diesel starter kit, spray cans, paint, oil, grease	120l	Contained within bldg.	20l/h	Fire extinguisher, spill kit, absorbent material
Satellite HWAP 212, HHC & C Co, 44th Sig Bn	212-2	Oily solids (empty plastic cans, empty metal cans, used absorbent material, used rags, used anti-freeze)	600l	Contained within bldg.	120l/h	Fire extinguisher, spill kit
UST 212, HHC & C Co, 44th Sig Bn	212-3	Used Oil	5,000l	N/A	N/A	-
AST 212, HHC & C Co, 44th Sig Bn	212-4	Anti-freeze	3,000l	South	N/A	-
HMSA (garage) 212a, C Co, 44th Sig Bn	212a-1	No hazardous material	N/A	N/A	N/A	-
HMSA (2 metal connexes) Next to 212a, HHC, 44th Sig Bn	212a-2	Oil, grease, adhesive, anti-freeze	350l	South	20l/h	Fire extinguisher, no spill kit since metal connex is secondary contained
HWAP 219a,HHC 7th Sig Bde, 44th Sig Bn	219a-1	Used absorbent, oil filters, used rags, empty metal cans, empty plastic cans, cartridges, grease, aerosol cans	6,480l	South	N/A	Fire extinguisher, spill kit
AST 221, HHC, 44th Sig Bn	221-1	Used Oil	3,000l	South	N/A	-

Table A-6.2j. POL and HS Information for Sullivan Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA (cons. POL storage garage) 221a, 224a, 224b, 44th Sig Bn	221a-1	Detergent, alcohol, brake fluid, distilled water, methanol, transmission fluid, motor oil, grease, sealant	3,000l	South	20l/h	Fire extinguisher, spill kit, absorbent material
HMSA (paint storage) 225, ALLSTAR	225-1	Paint, thinner, cleaner, solvent	1,200l	West	20l/h	Fire extinguisher, absorbent material
HMSA (storage room) 225, ALLSTAR	225-2	Anti-freeze, oil, gasoline, propane gas cylinders	2 cylind., 150l	Contained within bldg.	20l/h	Fire extinguisher
HMSA (motor pool) 225, ALLSTAR	225-3	Oil, grease, diesel	140l	Contained within bldg.	20l/h	Fire extinguisher
HMSA (floor paint storage) 225, ALLSTAR	225-4	Coolant, gasoline, detergent, thinner, paint, adhesives, hardener, sealing material,	1400l	East	20l/h	Fire extinguisher
2 x UST 247, USAGM PBO, Fuel Station	247-1	JP8 + Unleaded	2 x 25,000l	N/A	N/A	Fire extinguisher, spill kit
AST 249, 4ASOS	249-1	Waste fuel	950l	South	N/A	-
HMSA (daily use) 249a, A & B Co, 44th Sig Bn	249a-1	Lead acid batteries, fuel, oil, grease	150l	Contained within bldg.	20l/h	Fire extinguisher, spill kit, absorbent material
Satellite HWAP 249a, A Co & B Co, 44th Sig	249a-2	Oily solids (used filters, empty plastic cans, used rags, used absorbent material)	960l	Contained within bldg.	N/A	Fire extinguisher, absorbent material, spill kit
UST (temporary closed) 249a, 44th Sig B Co	249a-3	Used Oil	5,000l	N/A	N/A	-
HMSA (garage) 249a, A Co, 44th Sig Bn	249a-4	Cleaner, oil, coolant, fuel	250l	Southeast	20l/h	Fire extinguisher, spill kit, absorbent material
UST (temporary closed) 249a, 44th Sig B Co	249a-5	Anti-freeze	3,000l	N/A	N/A	-
HMSA(daily use) 249ª, 4ASOS	249a-6	Grease, anti-freeze, cleaner, transmission fluid, brake fluid, Ni/Cd batteries	600l	Southeast	200l/h	Fire extinguisher, absorbent material

Table A-6.2j. POL and HS Information for Sullivan Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
UST 249a, 4ASOS	249a-7	Used Oil	5,000l	N/A	N/A	-
UST 249a, 4ASOS	249a-8	Anti-freeze	3,000l	N/A	N/A	-
AST 249, 4ASOS	249a-9	Waste fuel	950l	Southwest	N/A	-
HMSA 249a, 4ASOS	249a-10	Anti-freeze, lube oil, cleaner, detergent, methanol, grease, paint spray cans, brake fluid	500l	South	200l/h	Fire extinguisher, spill kit
HWAP 249b, A & B Co, 44th Sig Bn; 4ASOS	249b-1	Grease, used filters, empty metal cans, empty plastic cans, used rags, used absorbent, used batteries, cartridges, aerosols	6,540l	Northwest	N/A	Fire extinguisher, spill kit, absorbent material
HMSA 258, Sullivan AIC Connex	258-1	Fuel, oil	175l	East	20l/h	Fire extinguisher
2 x AST 260, AIC	260-1	Anti-freeze, waste fuel	2 x 950l	South	N/A	-
HMSA (safety cabinet) 266, Veterinarian Clinic	266-1	Cleaner, formaldehyde	20l	Contained within bldg.	2l/h	Fire extinguisher
HMSA (Art Supply) 286, MA High School	286-1	Powder paint	50l	Contained within bldg.	N/A	Fire extinguisher
HMSA (Science room) 286, MA High School	286-2	Acids, bases, oil, buffer	100l	Contained within bldg.	N/A	Fire extinguisher
HMSA 746, MA High School	746-1	Paint, thinner, solvent, denatured alcohol	20 l	Contained within bldg.	N/A	Fire extinguisher
HMSA 746, MA High School	746-2	Acetylene, oxygen gas cylinders, spray cans, developer, cleaner, thinner, paint remover, glue, oil	500l + cylind.	Contained within bldg.	20l/h	Fire extinguisher
HMSA (gas storage) 746, MA High School	746-3	Acetylene, oxygen gas cylinders	10 cylind.	N/A	N/A	-

Table A-6.2j. POL and HS Information for Sullivan Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
Key: (1) If there were a major failure and all of the approximate quantity of material listed were released. Assume a 1-hour spill duration. (2) A detailed physical description of countermeasures for diversion and containment of spills, including structures and emergency equipment and an outline of the equipment capabilities.						

Table A-6.2k. POL and HS Information for Taylor Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
2 x UST 336, USAGM PBO, Fuel Station	336-1	JP8 + unleaded	2 x 25,000l	N/A	N/A	Fire extinguisher, spill kit
HMSA (daily use & battery storage) 338, HHC, 72nd Sig Bn	338-1	Sealing compound, anti-freeze, thinner, detergent, oil, adhesive, brake fluid, fuel lead acid batteries	200l	Contained within bldg.	20l/h	Fire extinguisher, absorbent material
Satellite HWAP 338, HHC, 72nd Sig Bn	338-2	Oily solids (used rags, used filters, used oil containers, used absorbent material)	480l	Contained within bldg.	N/A	Fire extinguisher, absorbent material
HMSA (daily use) 338a, A Co, 72nd Sig Bn	338-3	Not available due to troop deployment	Not available	Contained within bldg.	Not available	Fire extinguisher, absorbent material
HMSA (daily use) 338, B Co, 72nd Sig Bn	338-4	Cleaner, oil, anti-freeze	60l	Contained within bldg.	20l/h	Fire extinguisher, absorbent material
Satellite HWAP 338, A Co, B Co, 72nd Sig Bn	338-5	Oily solids	840l	Contained within bldg.	N/A	Fire extinguisher, spill kit
Outdoor ASF + AST 338, B Co, 72nd Sig Bn	338-6	Anti-freeze + waste fuel	1,000l + 950l	West	N/A	-

Table A-6.2k. POL and HS Information for Taylor Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
UST 338, B Co, 72nd Sig Bn	338-7	Used oil	5,000l	N/A	N/A	-
HMSA (garage) 338a, A Co, 72nd Sig Bn	338a-1	Oils and lubricants, cleaner, grease, oil, adhesive,	650l	East	20l/h	Fire extinguisher, absorbent material, spill kit
HMSA (daily use) 348, 560th MP Co	348-1	Silicone, grease, anti-freeze, lube oil, transmission fluid	70l	Contained within bldg.	20l/h	Fire extinguisher, spill kit, absorbent material
Satellite HWAP 348, 560th MP Co	348-2	Oily solids (cans, absorbent, rags, filters), used brake fluid, used anti-freeze, used oil	570l	Contained within bldg.	30l/h	Fire extinguisher, spill kit, absorbent material
2 x AST 348, 560th MP Co	348-3	Anti-freeze + Waste fuel	2 x 950l	North	N/A	-
Satellite HWAP 348, 272nd MP Co	348-4	Oily solids (used oil filters, absorbent material, empty plastic cans, used rags) aerosol cans	600l	Contained within bldg.	N/A	Fire extinguisher, absorbent material, spill kit
Satellite HWAP 348, HHD, 95th MP Bn	348-5	Oily solids	480l	Contained within bldg.	N/A	Fire extinguisher, spill kit
UST 348, HHD, 95th MP Bn	348-6	Used oil	5,000l	N/A	N/A	-
HMSA (metal connex) No Bldg. # (560th Motorpark), 560th MP Co	348-7	Grease, lube oil, cleaner, battery water, brake fluid	1500l	North	20l/h	Spill kit, absorbent material
HMSA (garage) 348a, HHD, 95th MP Bn	348a-1	Washer fluid, oil, grease, anti-freeze	450l	North	20l/h	Fire extinguisher, absorbent material
HMSA (garage) 348b, 272nd MP Co	348b-1	Anti-freeze, lead acid batteries, oil, cleaner, solvent, paint, grease, battery water	1000l	North	200l/h	Fire extinguisher, spill kit

Table A-6.2k. POL and HS Information for Taylor Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA (HM storage rooms/ sales area) 351, AAFES Car Care Center	351-1	Chemicals, oil, anti-freeze, lead acid batteries, dry cell batteries	15,800l	North.	4 l/h	Fire extinguisher, absorbent material, spill kit
Satellite HWAP 351, AAFES Car Care Center	351-2	Oily solids (empty oil cans, oily solids)	240l	Contained within bldg.	N/A	Fire extinguisher, absorbent material, spill kit
HMSA (daily use) 351, AAFES Car Care Center	351-3	Motor oil, cleaning compound, solvent, gas cylinders	900l	North	200l/h	Fire extinguisher, absorbent material, spill kit
Outdoor HWAP 351, AAFES Car Care Center	351-4	Oil filters, used rags, empty plastic cans ($10m^3$), tires ($38m^3$), aerosol cans, lead acid batteries	52,000l	South	N/A	Absorbent material
UST 351, AAFES Car Care Center	351-5	Used oil	3,000l	N/A	N/A	-
UST 351, AAFES Car Care Center	351-6	Anti-freeze	3,000l	N/A	N/A	-
HWAP 355, 72nd Sig Bn, 95th MP Bn	355-1	Used absorbent, oil filters, used rags, empty metal cans, empty plastic cans, grease, aerosol cans	6,360l	South	N/A	Fire extinguisher, spill kit
HWAP 356, DPW, other units	356-1	Empty metal cans, empty plastic cans, used paint, paint related materials, used solvent, aerosol cans, aerosol cans cont. pesticides	5,780l	South	200l/h	Fire extinguisher, spill kit
Outdoor HM cage (gas cylinder storage) Next to 356, DPW, Refrigeration Shop	356-2	Freon, acetylene, oxygen gas cylinders	10 cylind.	N/A	N/A	-
HMSA (concrete garage) 358, DPW, Self Help Shop	358-1	Paint, thinner, cleaner, glue	4500l	North	20l/h	Fire extinguisher, spill kit

Table A-6.2k. POL and HS Information for Taylor Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA (HM storage rooms) 359, DPW, Entomology Shop	359-1	Pesticides	120l	N/A	1l/h	Fire extinguisher, spill kit
Satellite HWAP 359, DPW, Refrigeration Shop	359-2	Aerosols, rags, empty batteries, used oil	180l	Contained within bldg.	30l/h	Fire extinguisher, absorbent material
HMSA (daily use) 359, DPW, Refrigeration Shop	359-3	Cleaner, adhesive, oil	30l	Contained within bldg.	10l/h	Fire extinguisher, absorbent material
Satellite HWAP 359, DPW, Entomology Shop	359-4	Empty batteries, solids contaminated with pesticides	120l	Contained within bldg.	N/A	Fire extinguisher, spill kit
HMSA (HM room) 359, DPW, Paint Shop	359-5	Glue, cleaner, oil, thinner, paint	650l	East	19l/h	Fire extinguisher, spill kit
HMSA (daily use) 359, DPW, Paint Shop	359-6	Paint, thinner, spray cans, turpentine	10l	Contained within bldg.	2l/h	Fire extinguisher
HMSA (daily use) 359, DPW, Electrical Shop	359-7	Ice cleaner, spray cans, anti-freeze	35l	Contained within bldg.	20l/h	Fire extinguisher
HMSA (daily use) 359, DPW, Sewage Shop	359-8	Oil, spray cans, grease	20l	Contained within bldg.	2l/h	Fire extinguisher
Satellite HWAP 359, DPW, Electrical Shop	359-9	Used batteries	120l	Contained within bldg.	N/A	Fire extinguisher
HMSA (concrete garage) No bldg. #, DPW, Refrigeration Shop	359-10	Spray cans with freon/ florin/ propane, adhesive, cleaner, oil, grease	350l	West	1gal/h	Fire extinguisher, absorbent material, spill kit
HMSA (daily use) 374, DPW, Self Help Shop	374-1	Paint, thinner, preservative, oil	950l	North	2.5l/h	Fire extinguisher

Table A-6.2k. POL and HS Information for Taylor Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
Outdoor HWAP 374, DPW	374-2	Fluorescent light tubes	1,000l	N/A	N/A	-
HMSA (HM storage room) 374, DPW, Carpenter Shop	374-3	Turpentine, adhesive, spray cans, paint, thinner, polyurethane, wood preservative	170l	Contained within bldg.	2l/h	Fire extinguisher, absorbent material
HMSA (gas cylinder storage) 374, DPW, Self Help Shop	374-4	Oxygen, propane, acetylene gas cylinders	20 cylind.	N/A	N/A	-
HMSA (daily use) 399, C Co, 72nd Sig Bn	399-1	Alcohol, cleaner, anti-freeze, oil, grease, battery water	250l	Contained within bldg.	20l/h	Fire extinguisher, spill kit
Satellite HWAP 399, C Co, 72nd Sig Bn	399-2	Oily solids	360l	Contained within bldg.	N/A	Fire extinguisher, spill kit
UST 399, C Co, 72nd Sig Bn	399-3	Used oil	3,000l	N/A	N/A	-
HMSA (garage) 399a, C Co, 72nd Sig Bn	399a-1	Starter fluid, alcohol, anti-freeze, battery water, oil, propane	400l	North	20l/h	Fire extinguisher, spill kit
UST 400, DPW	400-1	Used oil	3,000l	N/A	N/A	-
AST 400a, DPW O&M	400a-1	De-icing fluid	30,000l	Southeast	N/A	-
HMSA (garage) 400e, DPW, Roads&Grounds	400e-1	Oil, grease, anti-freeze, fuel, alcohol	1,400l	West	20l/h	Fire extinguisher, spill kit
2 x AST 405a, AIC Taylor	405a-1	Anti-freeze, used oil	2 x 995l	Northwest	N/A	-
HMSA (daily use) 405b, DPW, SORT Center	405b-1	*Flam. Cab.:* oil, spray cans, solvent, cleaner *Shelf:* paint	150l	Contained within bldg.	10l/h	Fire extinguisher, absorbent material

Table A-6.2k. POL and HS Information for Taylor Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HWAP (3 metal connexes) 405b, DPW, SORT Center	405b-2	*#1:* lye, acids, detergents, Ni-Cd batteries, pesticides *#2:* dry cell batteries, Li batteries, Mg batteries, chemicals, lab packs *#3:* aerosols, grease cartridges, medicine, printing products	2500l	Northeast	N/A	Fire extinguisher, absorbent material
2 x AST 405b, DPW, SORT Center	405b-3	Anti-freeze, used oil	2 x 950l	Northeast	N/A	Fire extinguisher, absorbent material
HWAP 405b, DPW, SORT Center	405b-4	*ASPs:* Liquid paint, adhesive, paint related materials, electronic scarp, solvent *Containers:* compressed gas cylinders, Pb-batteries, fluorescent light tubes, empty plastic containers, empty metal containers, used rags, refrigerators, tires	106,000l	Northeast	20l/h	Fire extinguisher, absorbent material
HWAP 421, MAM	421-1	Used absorbent, oil filters, used rags, empty metal cans, used paint, paint related materials, anti-freeze, non-halogenated solvent, grease, aerosol cans, cartridges	6,700l	N/A	200 l/h	Fire extinguisher, spill kit, absorbent material
HMSA (daily use) 426, Skill Development Center	426-1	Spray cans, oil, paint, grease	30l	Contained within bldg.	1l/h	Fire extinguisher, absorbent material
Satellite HWAP 426, Skill Development Center	426-2	Oily solids (plastic cans, absorbent material, used rags, crushed oil filters), used oil	510l	Contained within bldg.	30l/h	Fire extinguisher, absorbent material
AST + 2 x ASP 426, Skill Development Center	426-3	Used oil + 2 x anti-freeze	2,000l + 2 x 800l	North	N/A	Fire extinguisher, absorbent material

Table A-6.2k. POL and HS Information for Taylor Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
Outdoor HWAP 426, DCA, Skill Development Center	426-4	Aerosols, used absorbent, oil filters, used rags, empty plastic cans, used batteries	13,400l	East	N/A	-
HMSA (metal connex) Next to 426, Skill Development Center	426a-1	Anti-freeze, oil, cleaner	9,500l	South	200l/h	Fire extinguisher, no spill kit since metal connex is secondary contained
UST 428, MAM	428-1	Used oil	3,000l	N/A	N/A	-
HMSA (daily use) 428, MAM	428-2	Grease, adhesive, alcohol	50l	Contained within bldg.	20l/h	Fire extinguisher, spill kit
Satellite HWAP 428, MAM	428-3	Oily solids	120l	Contained within bldg.	N/A	Fire extinguisher, spill kit
HMSA (POL storage) 429, MAM	429-1	Adhesive, grease, silicone, break/ defrosting/ cutting/ transmission/ hydraulic fluid, fuel, anticorrosive, thinner, cleaner, anti-freeze, lube oil, solvent, battery water, florin, detergent, acetone, alcohol	1,300l	Northeast	200l/h	Fire extinguisher, spill kit
HMSA (Paint storage) 429, MAM	429-2	Paint (also CARC), thinner	800l	Northeast	200l/h	Fire extinguisher, spill kit
UST 429, MAM	429-3	Used oil	3,000l	N/A	N/A	-
3 x UST 429, MAM	429-4	JP8 + used oil	2 x 5,000l + 3,000l	N/A	N/A	-
UST 429, MAM	429-5	Used oil	3,000l	N/A	N/A	-
2 x AST 429, MAM	429-6	Waste acid	2 x 1,500l	East	N/A	-
Satellite HWAP 429, MAM	429-7	Oily solids, spray cans	800l	Contained within bldg.	N/A	-
HMSA (daily use) 429, MAM	429-8	Solvent, spray cans, lube oil, adhesive, coolant, hydraulic fluid, grease	800l	Southeast	200l/h	Fire extinguisher, spill kit, absorbent material

Table A-6.2k. POL and HS Information for Taylor Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HWAP (battery storage) 429, MAM	429-9	Lead-acid batteries	4 x 600l	Southeast	N/A	-
HMSA (corrosive storage) 429k, MAM	429k-1	Thinner, detergent, battery acid, rust converter, wax remover	2,000l	Southwest	20l/h	Fire extinguisher, spill kit
4 x UST 433, MAM	433-1	1 x heating oil + 3 x waste fuel	16,000l + 3 x 3,000l	N/A	N/A	-
UST + AST 435, MAM	435-1	Heating oil	5,000l	East	N/A	-
AST 435, MAM	435-2	Waste fuel	1,000l	East	N/A	-
HMSA (garage) 9423a, B Co, 72nd Sig Bn	9423a-1	Anti-freeze, cleaner, oil, alcohol, grease, distilled water	1,000l	West	20l/h	Fire extinguisher, spill kit

Key:
(1) If there were a major failure and all of the approximate quantity of material listed were released. Assume a 1-hour spill duration.
(2) A detailed physical description of countermeasures for diversion and containment of spills, including structures and emergency equipment and an outline of the equipment capabilities.

Table A-6.2l. POL and HS Information for Turley Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
UST 461, not used	461-1	Used oil	5,000l	N/A	N/A	-
HMSA (daily use) 461, not used	461-2	Empty	N/A	South	N/A	-
HMSA (garage) 461a, not used	461a-1	Empty	N/A	South	N/A	-
UST 463, 181st Trans Bn	463-1	Used oil	5,000l	N/A	N/A	-

Table A-6.2l. POL and HS Information for Turley Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA 463ª, UMUC, AIC Turley	463a-1	Propane gas, paint, grease, gasoline, oil	250l	Northeast	20l/h	Fire extinguisher, absorbent material
UST 464, 596th Maint Co	464-1	Used oil	3,000l	N/A	N/A	Fire extinguisher, spill kit
Satellite HWAP 464, 596th Maint Co	464-2	Oily solids	720l	Contained within bldg.	N/A	Fire extinguisher
ASF 464, 596th Maint Co	464-3	Anti-freeze	1,000l	Southwest	N/A	Fire extinguisher, spill kit, absorbent material
HMSA (daily use) 464, 596th Maint Co	464-4	Anti-freeze, grease, lube oil, hydraulic fluid, battery water	360l	Contained within bldg.	200l/h	Fire extinguisher, spill kit, absorbent material
HMSA (garage) 464a, 596th Maint Co	464a-1	Spray cans, paint, lube oil, anti-freeze, fuel, methanol, brake fluid	600l	Southeast	200l/h	Fire extinguisher
UST 465, 181st Trans Bn	465-1	Waste oil	3,000l	N/A	N/A	-
HMSA (garage) 466a, not used	466a-1	Empty	N/A	Northeast	N/A	-
HMSA (garage) 468a; not used	468a-1	Empty	N/A	Northwest	N/A	-
2 x AST 469, 181st Trans Bn	469-1	Waste fuel, used oil	950l, 995l	Northeast	N/A	-
2 x UST 470, USAGM PBO, Fuel Station	470-1	JP8 + unleaded	40,000l + 16,000l	N/A	N/A	Fire extinguisher, spill kit
ASF + AST 471; HHD, 181st Trans Bn	471-1	Anti-freeze + waste fuel	1,000l + 950l	Northeast	N/A	-
HMSA (daily use) 471, HHD, 181st Trans Bn	471-2	Paint, anti-freeze, hydraulic fluid, grease, brake fluid, battery water	50l	Contained within bldg.	20l/h	Fire extinguisher, spill kit
Satellite HWAP 471, HHD, 181st Trans Bn	471-3	Oily solids, aerosol cans	480l	Contained within bldg.	N/A	Fire extinguisher

Table A-6.2l. POL and HS Information for Turley Barracks						
Storage/Use Building Number/ Location	**Map I.D. Number**	**General Types of POL and HS**	**Approx. Quantity/ Capacity [l]**	**Predicted Spill Flow Direction(1)**	**Predicted Spill Flow Rate(1) [l/h]**	**Available Emergency Response Equipment(2)**
HMSA (garage) 471a, HHD, 181st Trans Bn	471a-1	No HM stored	N/A	South	N/A	-
HWAP 519, 596th Maint Co; HHD,181st Trans Bn	519-1	Rags, filters, absorbent, metal cans, plastic cans, anti-freeze, grease, aerosol cans	7,420l	Northeast	1,000l/h	-

Key:
(1) If there were a major failure and all of the approximate quantity of material listed were released. Assume a 1-hour spill duration.
(2) A detailed physical description of countermeasures for diversion and containment of spills, including structures and emergency equipment and an outline of the equipment capabilities.

Facility/Unit/Organization-Specific Information on Prevention Equipment

Table A-6.3 provides information on the prevention equipment that is available at each facility, unit, or organization.

Table A-6.3a. Spill Prevention Equipment for Benjamin Franklin Village

Location/Building Number	Containment System Type	Construction Material	Capacity
313-1	Shed without secondary containment	Concrete floor	N/A
313c-1	Shed without secondary containment	Concrete	N/A
313-2	N/A (compressed gas cylinder storage)	N/A	N/A
313-3	Safety Container with secondary containment	Metal	100%
313-4	Safety Container with secondary containment	Metal	100%
313-5	N/A (compressed gas cylinders only)	N/A	N/A
313-6	Indoor HM storage without secondary containment	Vinyl floor	Contained within bldg.
313-7	Outdoor HWAP with containers and drums on paved underground	Plastic, metal, concrete	N/A
311-1	Indoor sales area without secondary containment	Floor tiles	Contained within bldg.
311-2	Indoor HM storage with drip pans	Plastic and metal	100%
311-3	Outdoor HWAP with containers on paved underground	Metal, concrete	N/A
311-4	Double-walled USTs	Metal	100%
324-1	Double-walled UST	Metal	100%
739-1	Indoor HMSA without secondary containment	Vinyl floor	Contained within bldg.
739-3	Indoor satellite HWAP	Plastic, vinyl floor	Contained within bldg.
739-2	ASP with secondary containment	Metal	100%

Table A-6.3b. Spill Prevention Equipment for Coleman Barracks

Location/Building Number	Containment System Type	Construction Material	Capacity
002-1	N/A (gas cylinder storage)	N/A	N/A
003-1	N/A (gas cylinder storage)	N/A	N/A
004-1	POL storage in metal connex with secondary containment	Metal	100%
4-1	Indoor self-contained storage with spill pallets and berm	Metal, leak proof floor	>10%
4-2	Double-walled AST	Metal	100%

Table A-6.3b. Spill Prevention Equipment for Coleman Barracks			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
4a-1	Indoor HM storage with safety cabinets, spill pallets and drip pans	Metal, concrete, plastic	>10%
4a-2	Indoor safety cabinet	Metal	>10%
4a-3	Indoor safety cabinet	Metal	>10%
4a-4	Indoor safety cabinet	Metal	>10%
4a-5	Indoor safety cabinet	Metal	>10%
4a-6	Indoor safety cabinet	Metal	>10%
4a-7	Indoor safety cabinet with drip pans	Plastic, Metal, concrete	>10%
4a-8	Double-walled UST	Metal	100%
4a-9	Double-walled UST	Metal	100%
4a-10	Double-walled ASTs and collection dike	Plastic	100%
4b-1	HW building with secondary containment sump	Concrete	>10%
8-1	Double-walled AST	Metal	100%
8a-1	Double-walled UST	Metal	100%
9-1	Indoor safety cabinets and secondary containment (with berm) in HM Pharmacy	concrete	>10%
9-2	Indoor HWAP (no liquids)	Concrete floor	Contained within bldg.
9-3	Double walled AST	Metal	100%
9-4	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
10a-1	Double walled UST	Metal	100%
21-1	N/A (gas tank)	N/A	N/A
21-2	Outdoor HWAP without secondary containment (no liquids stored)	N/A	N/A
23a-1	Double-walled AST	Metal	100%
26-1	Indoor self-contained storage with spill pallets	Metal	>10%
26-2	Indoor self-contained storage with spill pallets	Metal	>10%
26-3	Indoor HM storage room with secondary containment (with grit)	Metal	>10%
26a-1	HW storage building with secondary containment (with berm)	Concrete	>10%
42-1	Indoor safety cabinet	Metal	>10%
42-2	Indoor satellite HWAP	Plastic, vinyl floor	Contained within bldg.
42-3	HW storage building with secondary containment (sump)	Metal	>10%
42-4	Indoor safety cabinets	Metal, vinyl floor	>10%
49-1	Indoor safety cabinet	Metal	>10%
49-2	Double-walled UST	Metal	100%
49a-1	HMSA (garage) with secondary containment (with berm)	Concrete	>10%
49b-1	HW storage building with secondary containment (sump)	Concrete	>10%

Table A-6.3b. Spill Prevention Equipment for Coleman Barracks			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
50-1	Indoor safety cabinet	Metal	>10%
50-2	Double-walled UST	Metal	100%
51-1	Double-walled AST	Metal	100%
52-1	HM storage room with berm	Floor tiles	>10%
52-2	Indoor safety cabinet	Metal	>10%
52-3	Indoor safety cabinet	Metal	>10%
52-4	HMSA (garage) with secondary containment (with berm)	Concrete	>10%
54-1	Metal connex with secondary containment	Metal	>10%
56-1	Indoor safety cabinet and drip pans	Metal	>10%
56-2	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
56-3	Double-walled UST	Metal	100%
56a-1	HMSA (garage) with berm	concrete	>10%
57-1	Double-walled UST	Metal	100%
57-2	Indoor satellite HWAP	Plastic, floor	Contained within bldg.
57a-1	HWAP with secondary containment sump	concrete	100%
60-1	HMSA (garage) with secondary containment (with berm)	Concrete	>10%
60-2	HW storage building with secondary containment (sump)	Concrete	>10%
87c-1	HM storage garage with berm, drip pans and spill pallets	Metal, concrete	>10%
87c-2	Metal connex with secondary containment	Metal	>10%
87c-3	Metal connex with secondary containment	Metal	>10%
87c-4	Metal connex with secondary containment	Metal	>10%
94-1	Double-walled	Metal	100%
97-1	POL storage room with secondary containment	concrete	>10%
97-2	Indoor safety cabinets and spill pallets	Metal	>10%
97-3	Indoor safety cabinets and spill pallets	Metal	>10%
97-4	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
97-5	Indoor safety cabinet	Metal	>10%
97-6	Outdoor safety container	Metal	>10%
97-7	Double-walled UST	Metal	100%
97-8	Double-walled UST	Metal	100%
106-1	Indoor safety cabinet	Metal	>10%
1271-1	Indoor safety cabinet	Metal	> 10%
1271-2	Outdoor safety cabinet	Metal	10%
1271-3	No secondary containment (no liquids) in HW wooden garage	N/A	N/A

Table A-6.3b. Spill Prevention Equipment for Coleman Barracks			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
1344-1	Indoor safety cabinet	Metal	>10%
1344-2	Indoor safety cabinet	Metal	>10%
1344-3	Indoor safety cabinet	Metal	>10%
1344-4	Outdoor safety cabinet	Metal	>10%
1344-5	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
1344a-1	HW building with secondary containment sump	Concrete	>10%
1344a-2	Double-walled UST	Metal	100%
1344a-3	Double-walled AST	Metal	100%
1345e-1	HM storage garage with secondary containment (with berm)	Concrete	>10%
1349-1	Indoor safety cabinet	Metal	>10%
1349-2	Double-walled UST	Metal	100%
1349-3	Indoor self-contained storage with spill pallets	Concrete	>10%
1349b-1	HW building with secondary containment dike and berm	Concrete	>10%
1373-1	Indoor safety cabinet and self-contained storage with spill pallets	Metal, plastic, concrete	>10%
1373-2	N/A (compressed gas cylinder storage)	N/A	N/A
1373-3	Double-walled AST	Metal	100%
1373-4	Double-walled AST	Metal	100%
1373b-1	HM-building with drip pans and berm	Plastic, concrete	>10%
1373c-1	HM-building with drip pans and berm	Plastic, concrete	>10%
1373c-2	HM building with safety cabinet and berm	Metal, concrete	>10%
1373d-1	N/A (compressed gas cylinder storage)	N/A	N/A
1373T-1	Indoor safety cabinet	Metal, concrete	>10%
1373T-2	Double-walled ASTs	Metal	100%
1373T-3	Indoor safety cabinet	Metal	>10%
1373T-4	Double-walled UST	Metal	100%
1373T-5	N/A (gas cylinder storage)	N/A	N/A
1375-1	Indoor safety cabinet	Metal	>10%
1375-2	Indoor spill pallet	Metal	>10%
1375-2	Double-walled	Metal	100%
1375rub-1	One metal connex with and one without secondary containment	Metal	>10% + <10%
1375rub-2	HWAP without secondary containment (no liquids stored)	N/A	N/A
1395-1	Indoor flammable cabinets with secondary containment	Metal	>10%
1395-2	Double-walled UST	Metal	100%
1395-3	Indoor satellite HWAP contained in drip pans	plastic	>10%

Table A-6.3b. Spill Prevention Equipment for Coleman Barracks			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
1395-4	Indoor flammable cabinet with secondary containment	Metal	>10%
1395-5	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
1395a-1	HM storage garage with secondary containment (with berm)	concrete	>10%
1396-1	Double-walled USTs	Metal	100%
1400a-1	HM storage garage with secondary containment (with berm)	Concrete	>10%
1400b-1	HM storage garage with secondary containment (with berm)	Concrete	>10%
1400c-1	HM storage garage with secondary containment (with berm)	Concrete	>10%
1400d-1	HM storage garage with secondary containment (with berm)	Concrete	>10%

Table A-6.3c. Spill Prevention Equipment for Dannenfels Communication Site			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
2456-1	Double-walled ASTs	Metal	100%
2456-2	Double-walled USTs	Metal	100%

Table A-6.3d. Spill Prevention Equipment for Friedrichsfeld QM Service Center			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
1040-1	HM storage garage	Concrete floor (Mr. Hardy!!)	100%
1040-2	Indoor safety cabinet with secondary containment	Metal	100%
1041-1	Metal connex without secondary containment	N/A	N/A
1041-2	Double-walled AST	Metal	100%
1041-3	Indoor safety cabinets and drip pans	Metal	Contained within bldg.
1042-1	Indoor safety cabinets with drip pans and secondary containment	Metal	Contained within bldg.
1042-2	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
1042a-1	HW building with secondary containment sump	Concrete	100%

Table A-6.3d. Spill Prevention Equipment for Friedrichsfeld QM Service Center			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
1043-1	Double-walled AST	Metal	100%
1045-1	Paint storage building with secondary containment (with berm)	Leak proof floor	100%
1053-1	Double-walled USTs	Metal	100%

Table A-6.3e. Spill Prevention Equipment for Funari Barracks			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
815-1	Double-walled UST	Metal	100%
817-1	Double-walled ASTs	Metal	100%

Table A-6.3f. Spill Prevention Equipment for Grünstadt AFEES Facilities			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
3551-1	Secondary containment with spill pallets	Metal	>10%
3552-1	Indoor HM Storage with spill pallets and safety cabinets	Metal	>10%
3553-1	Indoor safety cabinets	Metal	>10%
3555-1	Metal connex with secondary containment	Metal	>10%
3555-2	Indoor safety cabinet	Metal	>10%
3555-3	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
3555-4	Indoor HM Storage with spill pallets and drip pans	Metal	>10%
3555-5	ASTs with secondary containment tray	Plastic	100%
3555-6	Indoor HM Storage with spill pallets	Metal	>10%
3555-7	Indoor safety cabinet	Metal	>10%
3555-8	Indoor HM Storage with spill pallets and drip pans	Metal	>10%
3555-9	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
3555-10	Double-walled AST	Metal	100%

Table A-6.3f. Spill Prevention Equipment for Grünstadt AFEES Facilities			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
3555-11	Indoor safety cabinet with secondary containment	Metal, concrete	>10%
3559-1	Indoor HM Storage with safety cabinets and drip pans	Metal	>10%
3559a-1	Outdoor HWAP without secondary containment on paved underground (no liquids stored)	Concrete underground	N/A
3567-1	Double walled AST	Metal	100%
3568-2	Indoor and outdoor HM Storage contained with spill pallets and drip pans	Metal, plastic	100%
3568-1	Double walled USTs	Metal	100%
3570-1	Double walled UST	Metal	100%
3570-2	Indoor HM Storage with safety cabinets and spill pallets	Metal	>10%
3570-3	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
3570-4	POL storage with spill pallets	Metal	>10%
3570-5	N/A (gas cylinder storage)	N/A	N/A

Table A-6.3g. Spill Prevention Equipment for Lampertheim Training Area			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
Shooting Stand	Paved underground	Concrete	N/A

Table A-6.3h. Spill Prevention Equipment for Mannheim Class III Point			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
119a-1	Double-walled UST	Metal	100%
119a-2	N/A (gas tank)	N/A	N/A
119a-3	Double-walled AST	Metal	100%
120-1	DRMO HM storage building with berm and spill pallets	Leak proof floor, metal	100%

Table A-6.3i. Spill Prevention Equipment for Spinelli Barracks			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
1504-1	Indoor daily use quantities of HM partly contained with spill pallets	Concrete	>10%
1504-2	Double-walled	Metal	100%
1504-3	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
1504-4	Double-walled ASTs	Metal	100%
1504c-1	HW building with secondary containment sump	Concrete	100%
1515b/c-1	HM storage garages with secondary containment (with berm)	Concrete	100%
1518-1	Indoor safety cabinet	Metal	>10%
1559-1	Double-walled UST	Metal	100%
1560-1	Building with berm and spill pallets	Plastic, leak proof floor	100%
1560-2	HM storage Warehouse with spill pallets, safety cabinets	Metal, concrete, floor tiles	10%
1563-1	Indoor safety cabinets	Metal	>10%
1563-2	Indoor satellite HWAP, liquid HW placed on spill pallets	Metal, plastic, concrete floor	>10% of liquid waste
1563-3	Double-walled UST	Metal	100%
1563-4	Daily use quantities of HM partly situated on spill pallets or drip pans	Metal	<10% (55gal drum not on spill pallet)
1563-5	Battery storage room with spill pallet and berm	Metal, sealed floor	>10%
1567-1	Double-walled UST	Metal	100%
1569a-1	HW building with secondary containment sump	Concrete	100%
1570-1	Indoor safety cabinet	Metal	>10%
1570-2	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
1570-3	Double walled ASTs	Metal	100%
1570a-1	Concrete HM storage garage with secondary containment	Concrete	>10%
1572-1	Indoor safety cabinet and spill pallets	Metal	>10%
1572-2	Indoor spill pallets	Metal and floor tiles	>10%
1572-3	Indoor safety cabinet with secondary containment	Metal	>10%
1572-4	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
1572-5	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
1572-6	Double-walled AST	Metal	100%
1572a-1	HM storage garage with secondary containment (with berm)	Concrete	>10%
1572b-1	ASTs and drum in concrete HM storage garage with berm	Metal and concrete	10%
1572c-1	Secondary containment in HM storage metal connex	Metal	>10%
1576-1	Double-walled USTs	Metal	100%

Table A-6.3i. Spill Prevention Equipment for Spinelli Barracks			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
1577-1	Indoor safety cabinet	Metal	>10%
1577-2	Double-walled USTs	Metal	100%
1595-1	HM storage garage with secondary containment (with berm)	Concrete	>10%
1596-1	HM storage garage with secondary containment (with berm)	Concrete	>10%
1609c-1	Double-walled AST	Metal	100%
1645-1	HM storage building with secondary containment	Concrete	>10%
1645-2	N/A (gas cylinder storage)	N/A	N/A
1845-1	Safety container with secondary containment	Metal	>10%
1852-1	Outdoor battery storage in containers	plastic	100%
1852-2	Double-walled	Metal	100%
1852-3	Indoor safety cabinet	Metal	>10%
1852-4	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
1852-5	Double-walled	Metal	100%
1852-6	Indoor safety cabinet	Metal	>10%
1853-1	Double-walled UST	Metal	100%
1854a-1	HWAP building with berm	Concrete	100%
1857-1	Indoor safety cabinet	Metal	>10%
1857-2	Double-walled UST	Metal	100%
1858-1	Double-walled	Metal	100%
1859-1	Building with spill pallets	Metal and concrete	<10%
1859-2	Double-walled UST	Metal	100%

Table A-6.3j. Spill Prevention Equipment Sullivan Barracks			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
208-1	Indoor safety cabinet	Metal	Contained within bldg.
208-2	Indoor safety cabinet	Metal	Contained within bldg.
211-1	Indoor Safety cabinets	Metal	Contained within bldg.
211-2	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
211-3	Double walled	Metal	100%

Table A-6.3j. Spill Prevention Equipment Sullivan Barracks			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
211b-1	Concrete HM storage garage with berm	Concrete	100%
212-1	Indoor safety cabinets	Metal	Contained within bldg.
212-2	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
212-3	Double-walled UST	Metal	100%
212-4	Double-walled ASTs	Metal	100%
212a-1	HM storage garage with secondary containment	Concrete	No HM stored
212a-2	Metal connexes with secondary containment	Metal	100%
219a-1	HWAP building with secondary containment sump	Concrete	100%
221-1	Double-walled UST	Metal	100%
221a-1	Consolidated POL garages with berm	Concrete	100%
225-1	Indoor HM storage with drip pans	plastic	100%
225-2	Indoor HM storage without secondary containment	Wooden floor	Contained within bldg.
225-3	Indoor HM storage with drip pans	plastic	100%
225-4	Indoor HM storage with drip pans	plastic	100%
247-1	Double-walled USTs	Metal	100%
249-1	Double-walled	Metal	100%
249a-1	Indoor daily use quantities on spill pallets	Metal, concrete floor	Contained within bldg.
249a-2	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
249a-3	Double-walled USTs	Metal	Tank temporarily closed
249a-4	HM storage concrete garage without secondary containment; material contained with spill pallets and safety cabinets	Metal and plastic	100%
249a-5	Double-walled UST	Metal	100%
249a-6	Indoor safety cabinets and spill pallets	Metal	100%
249a-7	Double-walled UST	Metal	100%
249a-8	Double-walled UST	Metal	100%
249a-9	Double-walles AST	Metal	100%
249a-10	HM storage storage room with flammable cabinet, spill pallets and drip pans	Metal	100%
249b-1	Concrete HWAP building with secondary containment sump	Concrete	>100%
258-1	Indoor safety cabinet with drip pans	Metal	100%
260-1	Double-walled ASTs	Metal	100%
266-1	Indoor safety cabinet	Metal	>10%
286-1	Indoor safety cabinet and shelf in basement (empty)	Metal, floor	Contained within bldg.
286-2	Indoor HM daily use quantities	Floor	Contained within bldg.

Table A-6.3j. Spill Prevention Equipment Sullivan Barracks			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
746-1	Indoor shelf	Floor	Contained within bldg.
746-2	Indoor safety cabinets and shelves	Metal, floor	Contained within bldg.
746-3	N/A (gas cylinder storage)	N/A	N/A

Table A-6.3k. Spill Prevention Equipment Taylor Barracks			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
336-1	Double-walled USTs	Metal	100%
338-1	Indoor safety cabinet	Metal	Not available
338-2	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
338-3	Indoor safety cabinet	Concrete	100%
338-4	Indoor safety cabinet	Concrete	100%
338-5	Indoor satellite HWAP	Plasti, concrete floor	Contained within bldg.
338-6	Double-walled AST and ASF	Metal	100%
338-7	Double-walled UST	Metal	100%
338a-1	HM storage building with secondary containment (with berm)	Concrete	100%
348-1	Indoor safety cabinet	Metal	Not available
348-2	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
348-3	Double-walled ASTs	Metal	100%
348-4	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
348-5	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
348-6	Double-walled UST	Metal	100%
348-7	Metal connex with secondary containment	Metal	100%
348a-1	HM storage garage with secondary containment (with berm)	Concrete	100%
348b-1	HM storage garage with secondary containment (with berm)	Concrete	100%
351-1	Indoor HM storage rooms and indoor sales area; drainage into oil/water separator	Concrete floor	N/A
351-2	Indoor satellite HWAP; drainage into oil/water separator	Plastic, concrete floor	N/A
351-3	Indoor daily use quantities on spill pallets; drainage into oil/water separator	Metal	100%

Table A-6.3k. Spill Prevention Equipment Taylor Barracks			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
351-4	Outdoor HWAP with berm; drainage into oil/water separator	Concrete	N/A
351-5	Double-walled USTs	Metal	100%
351-6	Double-walled UST	Metal	100%
355-1	HWAP building with secondary containment	Concrete	100%
356-1	HW building with secondary containment sump	Concrete	N/A
356-2	N/A (gas cylinder storage)	N/A	N/A
358-1	HM storage building with secondary containment (with berm)	Leak proof floor	Not available
359-1	HM storage room with secondary containment (with berm)	Leak proof floor	100%
359-2	Indoor satellite HWAP; liquid waste drums contained in drip pans	Plastic, concrete floor	Contained within bldg.
359-3	Indoor flammable cabinet	Metal	100%
359-4	Indoor satellite HWAP in HM storage room with secondary containment (with berm)	Plastic, leak proof floor	100%
359-5	HM storage room with secondary containment (with berm) and indoor safety cabinets	Metal, leak proof floor	100%
359-6	Indoor safety cabinet with secondary containment	Metal	100%
359-7	Outdoor roofed safety cabinet with secondary containment	Metal	100%
359-8	Indoor safety cabinet with secondary containment	Metal	100%
359-9	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
359-10	HM storage building with secondary containment (with berm), drip pans and indoor safety cabinets	Leak proof floor	100%
374-1	Indoor flammable cabinets	Metal	100%
374-2	Outdoor HWAP with no secondary containment (no liquids stored)	N/A	N/A
374-3	HM storage room with secondary containment (with berm)	Leak proof floor	100%
374-4	N/A (gas cylinder storage)	N/A	N/A
399-1	Indoor safety cabinet	Metal, concrete floor	Contained within bldg.
399-2	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
399-3	Double-walled UST	Metal	100%
399a-1	HM garage with secondary containment (with berm)	Concrete floor	100%
400-1	Double-walled UST	Metal	3,000l
400a-1	Double-walled AST	Metal	30,000l
400e-1	HM storage garage with secondary containment (with berm) and spill pallets	Metal and concrete	>100%
405a-1	Double-walled ASTs	Metal	100%

Table A-6.3k. Spill Prevention Equipment Taylor Barracks			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
405b-1	Safety cabinet with secondary containment and paint shelf without containment	Metal	Safety cabinet: 100% Paint shelf: no containment
405b-2	3 Metal connexes with secondary containment	Metal	>100%
405b-3	Double-walled ASTs	Metal	100%
405b-4	Double-walled ASPs, HW containers without secondary containment (no liquids)	Metal	ASPs: 100% HW containers: N/A
421-1	Secondary containment (dike)	Concrete	100%
426-1	Indoor safety cabinet with secondary containment and spill pallets	Metal	>100%
426-2	Indoor satellite HWAP, liquid waste drum in drip pan	plastic	>100%
426-3	Double-walled UST	Metal	>100%
426-4	Outdoor HWAP; area drained into oil/water separator	Concrete	N/A
426a-1	Metal connex with secondary containment	Metal	>100%
428-1	Double-walled	Metal	100%
428-2	Indoor HM partly contained with drip pallets	Metal	<100% (55 gal drums without containment)
428-3	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
429-1	POL storage room with drip pallets and secondary containment	Metal	100%
429-2	HM storage room with secondary containment (with berm)	Leak proof floor	100%
429-3	Double-walled	Metal	100%
429-4	Double-walled	Metal	100%
429-5	Double-walled	Metal	100%
429-6	Single-walled with secondary containment tray	Plastic	100%
429-7	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
429-8	Drip pallets / secondary containment	Metal	100%
429-9	Battery storage containers	plastic	100%
429k-1	HM storage garage with secondary containment (with berm)	Concrete	100%
433-1	Double-walled	Metal	100%
435-1	Double-walled	Metal	100%
9423a/338b-1	HM storage garage with secondary containment with spill pallets and berm	Metal, concrete	100%

Table A-6.3l. Spill Prevention Equipment for Turley Barracks			
Location/Building Number	**Containment System Type**	**Construction Material**	**Capacity**
461-1	Double-walled UST	Metal	100%
461-2	Indoor safety cabinets	Metal, concrete floor	N/A
461a-1	HM storage building with secondary containment (with berm)	Concrete	100%
463-1	Double-walled UST	Metal	100%
463a-1	HM storage building with secondary containment (with berm)	Concrete	100%
464-1	Double-walled AST	Metal	100%
464-2	Indoor daily emptied HWAP without secondary containment (no liquids stored)	Concrete	N/A
464-3	Double-walled ASF	Metal	100%
464-4	Indoor daily use quantities contained with spill pallets	Metal	>10%
464a-1	HM storage garage with secondary containment (with berm)	Concrete	>10%
465-1	Double-walled UST	Metal	100%
466a-1	HM storage building with secondary containment (with berm)	Concrete	>10%
468a-1	HM storage building with secondary containment (with berm)	Concrete	>10%
469-1	Double-walled ASTs	Metal	100%
470-1	Double-walled USTs	Metal	100%
471-1	Double-walled AST & ASF	Metal	100%
471-2	Indoor safety cabinet with secondary containment	Metal	>10%
471-3	Indoor satellite HWAP	Plastic, concrete floor	Contained within bldg.
471a-1	Garage with no HM stored	Concrete	N/A
519-1	HWAP building with drainage into oil/water separator	Concrete	N/A

APPENDIX 7

SLUG PREVENTION PLAN

INTRODUCTION

A Slug Prevention Plan has been prepared and implemented by the USAG Mannheim to:

1. Identify areas where petroleum, oil and lubricants (POL) and /or hazardous substances (HS) may be released at one time in a volume and/or concentration (i.e., “slug”) that negatively impacts the ability of the receiving wastewater treatment plant(s) to operate in normal parameters;

2. Identify response procedures to be implemented by personnel after a slug release; and

3. Identify resources available on- and off-site to respond to a slug release.

This plan contains the following elements as required by FGS Chapter 4:

- Section 1.0 – Description of discharge practices, including non-routine batch discharges (FGS Section C4.3.2.1.7.1);
- Section 2.0 – Description of stored chemicals (FGS Section C4.3.2.1.7.2);
- Section 3.0 – Plan for immediately notifying the domestic wastewater treatment system (DWTS) of slug discharges and discharges that would violate prohibitions under this section, including procedures for subsequent written notification in five days (FGS Section C4.3.2.1.7.3);
- Section 4.0 – Necessary practices to prevent accidental spills. This include proper inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of facility site runoff, and worker training (FGS Section C4.3.2.1.7.4);
- Section 5.0 – Proper procedures for building containment structures or equipment (FGS Section C4.3.2.1.7.5);
- Section 6.0 – Necessary measures to control toxic organic pollutants and solvents (FGS Section C4.3.2.1.7.6); and
- Section 7.0 – Proper procedures and equipment for emergency response, and any subsequent plans necessary to limit damage suffered by the treatment facility or the environment (FGS Section C4.3.2.1.7.7).

The office with primary responsibility for maintenance and implementation of this plan is DPW, EMD.

1.0 DRAINAGE SYSTEM AND DISCHARGE PRACTICES

All domestic and industrial wastewater generated at the installations of the USAG Mannheim is discharged via the USAG-controlled sewer system to the municipal sewer system and from there to the municipal wastewater collection and treatment facilities. The USAG Mannheim does not operate any domestic wastewater treatment plants (DWTPs).

The sanitary sewer and storm drainage systems are shown in the maps included in Appendix 5.

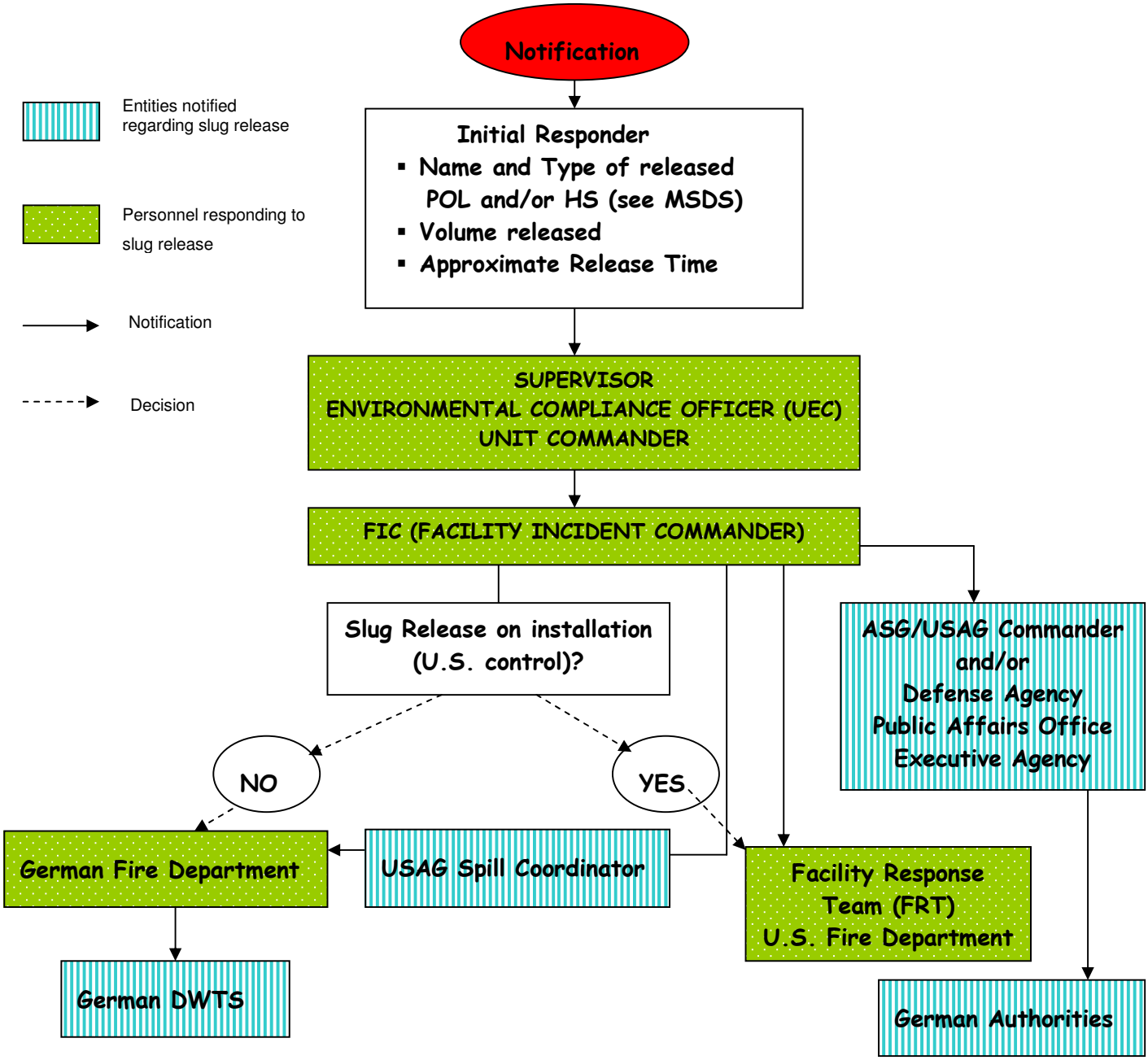
Location	**Sanitary Sewer and Storm Water Drainage**
Mannheim Area: BFV Coleman Barracks Funari Barracks Spinelli Barracks Sullivan Barracks Taylor Barracks Turley Barracks	**Combined sanitary sewer and storm water system**: • BFV • Coleman Barracks (western portion of the installation has separated sanitary sewer and storm water system; storm water is discharged via a oil-water separators into open ditches at the Airfield) • Funari Barracks • Spinelli Barracks • Sullivan Barracks • Taylor Barracks (separate sewer and storm water system is connected to the combined municipal sewer system of the city of Mannheim) • Turley Barracks Sanitary sewer (and storm water) is discharged into the municipal sewer system of the city of Mannheim.
Mannheim Class III Point	**Combined sanitary sewer and storm water system:** Storm water and sanitary water is discharged into the municipal sewer system of the city of Mannheim. Sanitary water of building 119 is collected in a waste water tank and emptied by a subcontractor on a regular basis.
Friedrichsfeld QM Service Center	**Combined sanitary sewer and storm water system**: Friedrichsfeld QM Service Center Sanitary sewer is discharged into the municipal sewer system of the city of Mannheim.
Dannenfels Communication Site	**Separate sanitary sewer and storm water system:** Sanitary sewer is discharged into a collection pit which is emptied by a subcontractor on a regular basis. Storm water is not collected.
Grünstadt AAFES Facilities	**Combined sanitary sewer and storm water system:** Sanitary sewer and storm water from the area around the gas station is discharged into the municipal sewer system of the city of Grünstadt. Storm water of other areas discharges directly into a creek (Sausenheimer Graben).

2.0 SLUG POTENTIAL INVENTORY

Table A-6.1 provides specific information for each facility, unit, or organization to identify the locations on the installation that have the potential to release a POL and/or HS slug into the sanitary sewer system. The locations where POL and/or HS are stored or managed at each facility, unit, or organization are shown on the maps in Appendix 5. A description of the stored POL and/or HS is provided in Table A-6.2.

3.0 NOTIFICATION OF A SLUG RELEASE

If a slug of POL and/or HS enters the sanitary sewer system, the following actions should be initiated as soon as practicable:



The following personnel and organizations are POCs who may need to be contacted in the event of a slug release at any USAG Mannheim location. In addition to verbal communication, written notification of a slug release must be provided to the DWTS within 5 days of the identified release, per FGS Section C4.3.2.1.7.3.

Table A-7.1 POCs for Slug Release at the USAG Mannheim

Position/Title	Name of Individual	Organization/ Mailing Address	Telephone No. (Work)	Telephone No. (Home)
Environmental Compliance Officer (ECO)	See Table A-6.1 for all individual ECO contact information			
USAG Spill Coordinator/ DPW Environmental Management Division	Mr. Gebreyohannes, Mr. Schork	EMD Staff, Building 346, Taylor Barracks	DSN 381-7699 DSN 381-7035	0162-2728635 0162-2728644
USAG Fire & Emergency Services Division	Shift leader Mr. Krug (Fire Chief)	Building 21, Coleman Brks	DSN 382-4120 DSN 382-4120	0162-2728356 0162-2728380 Emergency: DSN 117
DPW EMD	Ms. Foley	EMD Chief Building 346 Taylor Barracks	DSN 381-8675	0162-2728353
DPW Operation & Maintenance	Mr. Holeczek	O&M Chief, Building 346, Taylor Barracks	DSN 381-8927	0162-2728359
DPW O&M Emergency Officers	Mr. Kazemi Mr. Holeczek Mr. Thieme	O&M Staff Building 346, Taylor Barracks	DSN 381-7471 DSN 381-7240 DSN 381-8853	0162-2728659 0162-2728359 0162-2728533
German Fire Department	Mr. Schmitt	Fire Chief, Meerfeldstr. 1-5, Mannheim	0621-328880	112
Mannheim City Waste Water Treatment Plant *(Eigenbetrieb Stadtentwässerung Mannheim)*	Mr. Milich Dr. Schönung	Collini-Center 68161 Mannheim	0621-293-5119	-
Waste Water Treatment Plant Grünstadt (*Stadtwerke Grünstadt GmbH*)	N/A	Max-Planck-Str. 12 67269 Grünstadt	06359-85563 (24h occupied)	-
German Environmental Agency *(Fachbereich Baurecht und Umweltschutz)*	Mr. Krah	Collini-Center 68161 Mannheim	0621-293-7035	0621-293-7422 („Umwelt-telefon“)

4.0 SLUG RELEASE PREVENTION, CONTROL, AND RESPONSE

Chapter 2 and Appendix 6 provide general information on prevention structures and equipment for all types of spills of POL and/or HS. Table A-6.2 lists available emergency *response* equipment at the facility, unit, or organizations handling or storing POL and/or HS; Table A-6.3 lists *prevention* equipment (primarily containment systems) at each of these locations. Table-A-7.3 provides information on general emergency response equipment available for use throughout the USAG to respond to slug releases and other incidents involving POL and HS spills/releases.

5.0 BUILDING CONTAINMENT STRUCTURES AND EQUIPMENT

This section includes a general description of the types of building containment structures and equipment that are typically used at the USAG Mannheim.

5.1 Building Containment

Building containment construction materials include poured concrete walls, concrete block walls, concrete containment curbs, and containment sumps. Containment equipment consists of absorbent materials, booms and other barriers or preventive systems. The materials used must be compatible with the released material and sufficiently impervious to contain the spilled material. Containments must also comply with the applicable standards for volume, and precipitation volume.

Containment sumps are tanks and pits that collect gravity drainage and are emptied by gravity or pumped flow. Sumps are used as full or partial containments as appropriate.

Additional operational and maintenance issues that are considered in the design of containments include structural strength and integrity, traffic of equipment and vehicles, leaks from penetration through walls and floors, and leaks from expansion and contraction at joints. Concrete block structures may leak at the joints between blocks, and are subject to damage from the expansion of water that penetrates into the block. Pits and trenches must be properly cleaned to maintain flow and capacity, and grates and covers must be maintained to prevent pedestrian hazards.

5.2 Diversionary Structures

Where containments are not practical, diversions are used to direct drainage as needed. Drainage controls are needed to direct spilled materials to a retention basin, or direct storm water from equipment storage areas. The diverted materials are often diverted through an oil water separator. Diversions can include curbs, trenches, catch basins, or retention ponds that are used to redirect or retain spilled materials. Provisions to return spilled materials to the source facility should be provided where practical.

5.3 Separator Systems

There are several different types of separator systems used at the USAG Mannheim that are often combined with a sand trap. For slug releases of POL, oil-water separators are the most effective interceptor systems for slug releases of POL currently in place. Oil-water separators rely on the difference in density between water and POLs, which are generally less dense than water. Oil-water separators are typically rectangular boxes with internal baffles or weirs that operate on a flow-through basis. Free oil, water, and entrained oil droplets are directed to a quiescent compartment that collects oil on top and allows clean water underflow. Emulsified oils

may not be separated. Designs may take the form of grease separators, gas pre-separators, and absorption and coalescent separator. The operation of oil-water separators requires frequent inspection and maintenance, since the accumulation of oil and sludge can result in the undesired discharge of oil. Oil-water separators should be used as required to prevent the discharge of containment, equipment washdown, tank cleaning, or other oily wastewaters.

It should be noted that transformer fluids and other synthetic oils might not separate from water. In addition, may other commonly used hazardous substances (such as solvents and pesticides) will not be intercepted in an oil/water separator.

Table A-7.2 lists the different types of separators used at the USAG Mannheim.

Table A-7.2 Separator Systems at the USAG Mannheim

Name of Installation	Bldg. #	Structure of Separator
BFV	184	Grease separator
BFV	313	Grease separator
BFV	324	Grease separator
BFV	696	Grease separator
BFV	697	Grease separator
BFV	724	Grease separator
BFV	738	Grease separator
BFV	311	Sand trap, gas pre-separator
BFV	311	Sand trap, gas pre-separator
Coleman Barracks	23	Grease separator
Coleman Barracks	25	Grease separator
Coleman Barracks	45	Grease separator
Coleman Barracks	45	Grease separator
Coleman Barracks	45	Grease separator
Coleman Barracks	86	Grease separator
Coleman Barracks	1270	Grease separator
Coleman Barracks	1270	Grease separator
Coleman Barracks	1472	Grease separator
Coleman Barracks	1472	Grease separator
Coleman Barracks	1472	Grease separator
Coleman Barracks	4	Sand trap, gas pre-separator
Coleman Barracks	9	Sand trap, gas pre-separator
Coleman Barracks	9	Gasoline pre-separator, absorption and coalescent separator
Coleman Barracks	21	Gasoline pre-separator, absorption and coalescent separator
Coleman Barracks	49	Gasoline pre-separator, absorption and coalescent separator
Coleman Barracks	56	Gasoline pre-separator, absorption and coalescent separator
Coleman Barracks	57	Sand trap, gasoline pre-separator
Coleman Barracks	58	Gasoline pre-separator, absorption and coalescent separator
Coleman Barracks	58	Gasoline pre-separator, absorption and coalescent separator
Coleman Barracks	94	Sand trap, absorption and coalescent separator
Coleman Barracks	106	Sand trap, gasoline pre-separator

Table A-7.2 Separator Systems at the USAG Mannheim *(continued)*

Name of Installation	Bldg. #	Structure of Separator
Coleman Barracks	107	Sand trap, gasoline pre-separator
Coleman Barracks	1344	Sand trap
Coleman Barracks	1344	Sand trap
Coleman Barracks	1344	Sand trap
Coleman Barracks	1344	Sand trap, gasoline pre-separator
Coleman Barracks	1344	Sand trap, gasoline pre-separator
Coleman Barracks	1344	Sand trap, gasoline pre-separator
Coleman Barracks	1344	Gasoline pre-separator, absorption and coalescent separator
Coleman Barracks	1344	Gasoline pre-separator, absorption and coalescent separator
Coleman Barracks	1349	Sand trap, gasoline pre-separator
Coleman Barracks	1349	Gasoline pre-separator, absorption and coalescent separator
Coleman Barracks	1349	Sand trap, gasoline pre-separator
Coleman Barracks	1391	Sand trap, gasoline pre-separator
Coleman Barracks	1391	Gasoline pre-separator, absorption and coalescent separator
Coleman Barracks	1392	Gasoline pre-separator, absorption and coalescent separator
Coleman Barracks	1396	Sand trap, gasoline pre-separator
Coleman Barracks	1396	Sand trap, gasoline pre-separator
Coleman Barracks	4A	Sand trap, gasoline pre-separator
Coleman Barracks	4A	Sand trap, gasoline pre-separator
Coleman Barracks	76A	Sand trap, absorption and coalescent separator
Friedrichsfeld QM Service Center	1042	Sand trap, gasoline pre-separator
Friedrichsfeld QM Service Center	1044	Sand trap, gasoline pre-separator
Friedrichsfeld QM Service Center	1050	Sand trap, gasoline pre-separator
Friedrichsfeld QM Service Center	1053	Sand trap, gasoline pre-separator
Friedrichsfeld QM Service Center	1070	Sand trap, gasoline pre-separator
Friedrichsfeld QM Service Center	1081	Sand trap, gasoline pre-separator
Friedrichsfeld QM Service Center	1081	Sand trap
Funari Barracks	823	Grease separator
Funari Barracks	801	Gasoline pre-separator, absorption and coalescent separator
Funari Barracks	804	Sand trap, gasoline pre-separator
Funari Barracks	807	Sand trap, gasoline pre-separator
Funari Barracks	809	Sand trap, gasoline pre-separator
Spinelli Barracks	1566	Grease separator
Spinelli Barracks	1504	Sand trap, gasoline pre-separator, absorption and coalescent separator
Spinelli Barracks	1559	Gasoline pre-separator, absorption and coalescent separator

Table A-7.2 Separator Systems at the USAG Mannheim *(continued)*

Name of Installation	Bldg. #	Structure of Separator
Spinelli Barracks	1563	Sand trap, gasoline pre-separator, absorption and coalescent separator
Spinelli Barracks	1567	Gasoline pre-separator, absorption and coalescent separator
Spinelli Barracks	1569	Sand trap, gasoline pre-separator
Spinelli Barracks	1569	Gasoline pre-separator, absorption and coalescent separator
Spinelli Barracks	1570	Gasoline pre-separator, absorption and coalescent separator
Spinelli Barracks	1571	Sand trap, gasoline pre-separator
Spinelli Barracks	1572	Gasoline pre-separator, absorption and coalescent separator
Spinelli Barracks	1576	Sand trap, gasoline pre-separator
Spinelli Barracks	1578	Gasoline pre-separator, absorption and coalescent separator
Spinelli Barracks	1601	Sand trap, gasoline pre-separator
Spinelli Barracks	1645	Gasoline pre-separator, absorption and coalescent separator
Spinelli Barracks	1701	Sand trap, absorption and coalescent separator
Spinelli Barracks	1702	Sand trap, absorption and coalescent separator
Spinelli Barracks	1835	Sand trap, gasoline pre-separator
Spinelli Barracks	1855	Sand trap, gasoline pre-separator
Spinelli Barracks	1855	Sand trap
Sullivan Barracks	204	Grease separator
Sullivan Barracks	230	Grease separator
Sullivan Barracks	240	Grease separator
Sullivan Barracks	211	Gasoline pre-separator, absorption and coalescent separator
Sullivan Barracks	218	Gasoline pre-separator, absorption and coalescent separator
Sullivan Barracks	221	Gasoline pre-separator, absorption and coalescent separator
Sullivan Barracks	224	Gasoline pre-separator, absorption and coalescent separator
Sullivan Barracks	234	Gasoline pre-separator, absorption and coalescent separator
Sullivan Barracks	247	Absorption and coalescent separator
Sullivan Barracks	250	Sand trap, gasoline pre-separator
Sullivan Barracks	250	Sand trap, gasoline pre-separator
Sullivan Barracks	261	Gasoline pre-separator, absorption and coalescent separator
Sullivan Barracks	261	Gasoline pre-separator
Sullivan Barracks	218/220	Sand trap, gasoline pre-separator
Sullivan Barracks	220/221	Sand trap, gasoline pre-separator
Sullivan Barracks	234/235	Gasoline pre-separator, absorption and coalescent separator
Sullivan Barracks	249A	Sand trap, gasoline pre-separator
Sullivan Barracks	249A	Gasoline pre-separator
Sullivan Barracks	249A	Sand trap
Taylor Barracks	331	Grease separator
Taylor Barracks	331	Grease separator
Taylor Barracks	346	Grease separator
Taylor Barracks	334	Gasoline pre-separator, absorption and coalescent separator
Taylor Barracks	338	Gasoline pre-separator, absorption and coalescent separator
Taylor Barracks	338	Gasoline pre-separator, absorption and coalescent separator

Table A-7.2 Separator Systems at the USAG Mannheim *(continued)*

Name of Installation	Bldg. #	Structure of Separator
Taylor Barracks	338	Gasoline pre-separator
Taylor Barracks	338	Sand trap, gasoline pre-separator
Taylor Barracks	357	Sand trap, gasoline pre-separator
Taylor Barracks	359	Sand trap, gasoline pre-separator
Taylor Barracks	359	Sand trap
Taylor Barracks	364	Gasoline pre-separator, absorption and coalescent separator
Taylor Barracks	375	Sand trap, gasoline pre-separator
Taylor Barracks	375	Sand trap
Taylor Barracks	400	Sand trap, gasoline pre-separator, absorption and coalescent separator
Taylor Barracks	405	Absorption and coalescent separator
Taylor Barracks	426	
Taylor Barracks	428	Sand trap, gasoline pre-separator
Taylor Barracks	428	Sand trap, gasoline pre-separator
Taylor Barracks	429	Sand trap, gasoline pre-separator
Taylor Barracks	429	Sand trap, gasoline pre-separator
Taylor Barracks	429	Sand trap, gasoline pre-separator
Taylor Barracks	429	Sand trap, gasoline pre-separator
Taylor Barracks	433	Sand trap, gasoline pre-separator
Taylor Barracks	435	Sand trap, gasoline pre-separator
Taylor Barracks	405a	Absorption and coalescent separator
Turley Barracks	473	Grease separator
Turley Barracks	475	Grease separator
Turley Barracks	487	Grease separator
Turley Barracks	461	Sand trap, gasoline pre-separator
Turley Barracks	463	Sand trap, gasoline pre-separator
Turley Barracks	463	Gasoline pre-separator, absorption and coalescent separator
Turley Barracks	465	Sand trap, gasoline pre-separator
Turley Barracks	466	Gasoline pre-separator, absorption and coalescent separator
Turley Barracks	469	Sand trap, gasoline pre-separator
Turley Barracks	469	Gasoline pre-separator, absorption and coalescent separator

6.0 MEASURES TO CONTROL TOXIC ORGANIC POLLUTANTS AND SOLVENTS

The following measures need to be followed when handling or storing toxic organic pollutants and solvents:

- Storage areas for organic toxic pollutants and solvents must be well lit. Lights must not heat the stored materials, and must be at least 0.5 meters from toxic organic pollutants
- Smoking, open flames, and fires are not permitted in areas where toxic organic pollutants or solvents are stored or handled
- Toxic organic pollutants can not be stored together with flammable materials if they are not separated from each other by e.g., an adequate secondary containment
- Toxic organic pollutants and solvents must be kept in closed packages or containers that do not leak
- Areas where toxic organic pollutants and solvents are stored or handled must be leak proof

7.0 EQUIPMENT FOR EMERGENCY RESPONSE AND SUBSEQUENT PLANS

Table A-7.3 provides information on equipment available for emergency response in case of a POL and/or HS slug release that could potentially cause damage at the Domestic Waste Water Treatment Systems (DWTS).

Table A-7.3 Equipment for Emergency Response to Slug Discharges

Name of Installation from which DWTS receives waste water	Facility/Organization/Unit at which Emergency Response Equipment is available	Emergency Response Equipment
Coleman Barracks	Fire & Emergency Services Division, Bldg. 21	Hazardous Material Spill Response Trailer with various equipment to control spills: • HS resistant hoses and pump systems • Leakage control equipment • Set of containment materials (pads, booms, berms) • Collection tanks and catch basins of various sizes • Chemical-resistant protective clothing, breathing apparatus

APPENDIX 8

RED PLAN

The Red Plan

In the event of a spill of a hazardous substance or hazardous waste at installations of the USAG Mannheim, this Red Plan serves as an immediate action tool to initiate the correct response in the shortest possible time. The remainder of this Spill Prevention and Response Plan (SPRP) reinforces the Red Plan and provides in-depth information on spill prevention, response, notification, and cleanup procedures.

The Red Plan is to be used in the early stages of a spill, and the user is expected to transition to the remainder of the SPRP after appropriate notifications and response actions are underway.

Figure 1. IMMEDIATE RESPONSE ACTION LIST

IF IT IS A MINOR SPILL, CLEAN IT UP IMMEDIATELY!

A minor spill does not:
1) enter or threaten waters,
2) exceed a "significant" quantity (*see SPRP Section 4.2*), or
3) pose a safety or Environmental threat.

1. Report the Spill

Call Facility Incident Commander (FIC) (USAG Fire Department) if on post (DSN 117) or off post (CIV 0621-730-117)

Report the following:
Initial responder name and location.
Time, location, type/quantity of spill.
Need for emergency medical assistance.

2. Determine Safe Actions

No safe actions may be possible.
What is it, how can it hurt me, and what can I safely do?
- Check MSDS for spilled substance.
- Take safe, no-contact simple actions to help people or stop/contain the spill.

3. Stop the Leak

Do not contact or breathe vapors from material.
- Close valves, stop pumps, shut down power, move containers.

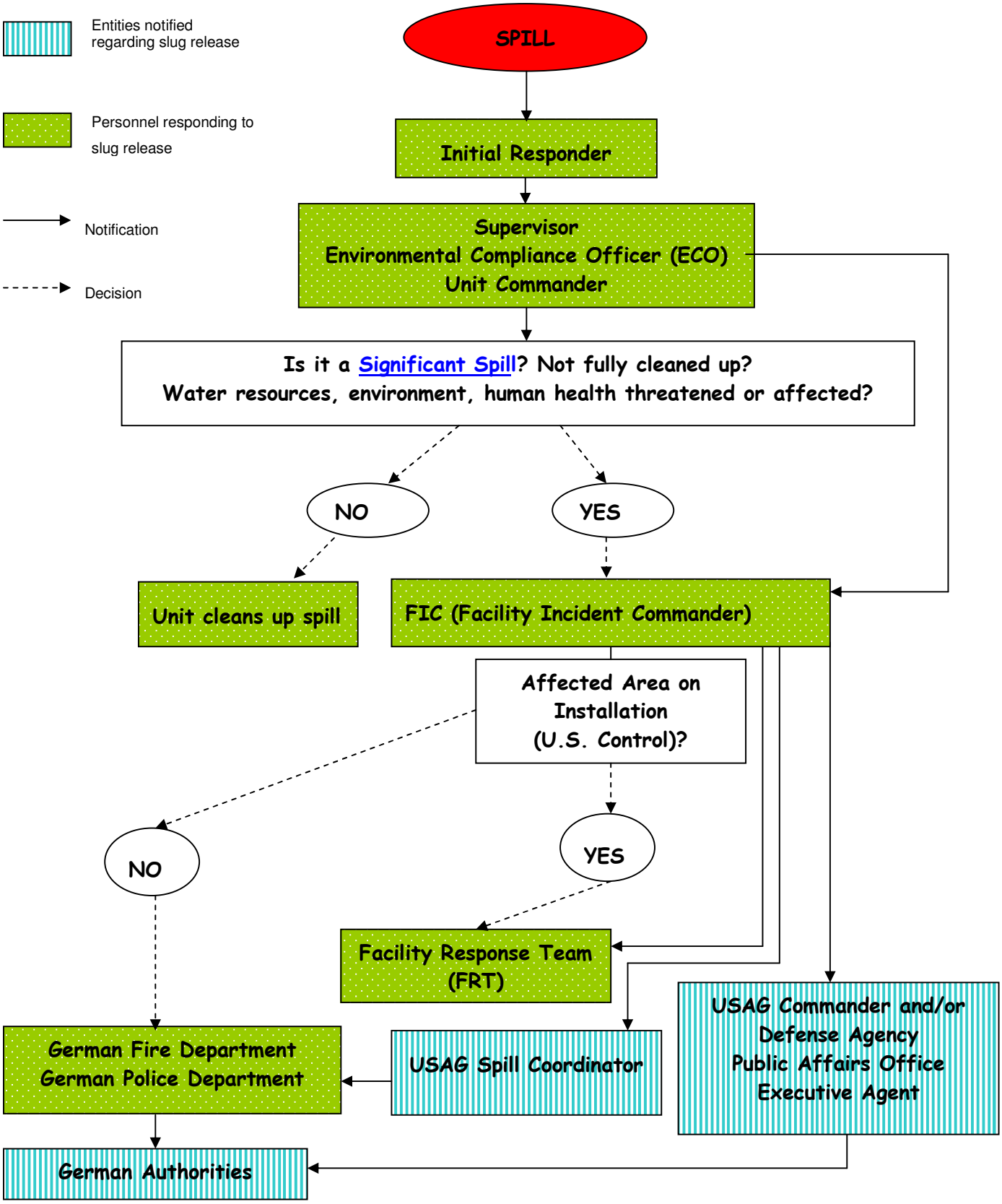
4. Control and Contain

Keep the spill from spreading.
Close containment valves.
Put down portable containments.
Put down absorbents.

Figure 2. FACILITY RESPONSE TEAM (FRT) ACTION LIST FOR MAJOR SPILLS / EMERGENCIES

Follow the Spill Plan	• Obtain personnel and equipment • Determine installation/unit information
Determine Safe Actions	• Evaluate material, hazards, evacuation needs • Provide PPE • Determine safe actions and set up team
Rescue and Evacuate	• Determine threatened areas and populations • Determine safe distances, refuge, evacuation routes • Activate evacuation / provide for medical treatment
Protect Humans and Animals	• Suppress airborne hazards: vapors, gas, and dust • Notify affected workers, residents • Control access to spill and threatened areas
Prevent/Control Fire, Explosions	• Assess existing/potential fires or explosion hazards • Exercise caution with POLs and flammables • Control ignition sources and fuels
Set Envir. Protection Priorities	• Drinking water resources • Water/wastewater treatment plants • Critical or sensitive ecological areas
Prevent Material Spread	• Stop or slow the release • Set up containments/diversions,impoundments • Transfer materials to safe storage
Address Non-Critical Priorities	• Recover human and animal victims • Recover property and equipment in immediate danger • Prevent property and equipment damage • Dispose of spilled materials

Figure 3. INITIAL SPILL RESPONSE AND NOTIFICATION PROCEDURES



POINTS OF CONTACT

Personnel and organizations to be contacted in the event of a POL or HS spill at the USAG Mannheim are identified in Table A-8.1.

In the following table, some telephone numbers are given as DSN numbers. The equivalent civilian area codes for the DSN number are given below.

DSN number	Civilian Area Code
380	0621-730
381	0621-730
382	0621-779

Table A-8.1. POCs for Spills at the USAG Mannheim

Position/Title	Name of Individual	Organization/ Mailing Address	Telephone No. (Work)	Telephone No. (Cell Phone)
Facility Incident Commander (FIC)	Shift leader of Fire & Emergency Division	Building 21, Coleman Barracks	DSN 382-4120	0162-2728356 Emergency: DSN 117
Alternate Facility Incident Commander (FIC)	Mr. Krug	Fire Chief, Building 21, Coleman Barracks	DSN 382-4690	0162-2728380
USAG Fire Department Spill Coordinator	Fire & Emergency Division	Building 21, Coleman Barracks	DSN 382-4690	0162-2728380
DPW EMD, Spill Coordinators	Mr. Gebreyohannes Mr. Schork	EMD Staff, Building 346, Taylor Barracks	DSN 381-7699 DSN 381-7035	0162-2728635 0162-2728644
German Fire Department	Mr. Schmitt	Fire Chief, Meerfeldstr. 1-5, Mannheim	0621-328880	112
USAG Military Police	N/A	-	DSN 114	DSN 114
German Police Department (Police station Käfertal)	N/A	Ladenburger Straße 3, Mannheim	0621-718490	110
Local Hospital	Diakonie-krankenhaus Mannheim	Speyerer Str. 91-93 and Feldbergstr. 68-70, Mannheim	0621/8102-0 0621/8106-0	112
USAG Health Clinic	N/A	US Army Health Clinic Mannheim Bldg.739 BFV	DSN 380-4095	DSN 116 (ambulance)
USAG Troop Medical Clinic	N/A	Troop Medical Clinic Bldg. 42 Coleman Brks	DSN 382-5386	DSN 116 (ambulance)

Position/Title	Name of Individual	Organization/ Mailing Address	Telephone No. (Work)	Telephone No. (Cell Phone)
Environmental Compliance Officer (ECO)	See Table A-6.1 for all individual ECO contact information			
USAG Commander	LTC Sturgeon	Building 246 Sullivan Barracks	DSN 380-1500	-
USAG DPW Director	Mr. Scavone	Building 346 Taylor Barracks	DSN 381-1560 / 8148	0162-2728347
Public Affairs Office (PAO)	Ms. Gebhard	Chief, PAO Bldg. 246 Sullivan Barracks	DSN 385-3886	0171-5895042
DPW Chief of Environmental Management Division	Ms. Foley	Building 346 Taylor Barracks	DSN 381-8675	0162-2728353
DPW Chief of Operation & Maintenance	Mr. Holeczek	O&M Chief, Building 346, Taylor Barracks	DSN 381-8927	0162-2728359
DPW O&M Emergency Officers	Mr. Kazemi Mr. Holeczek Mr. Thieme	O&M Staff Building 346, Taylor Barracks	DSN 381-7471 DSN 381-7240 DSN 381-8853	0162-2728659 0162-2728359 0162-2728533
DPW Roads and Ground	Mr. Fluhrer	DPW, Roads& Grounds Taylor, Bldg. 400	DSN 381-7325	0162-2728581
Mannheim City Wastewater Treatment Plant *(Eigenbetrieb Stadtentwässerung Mannheim)*	Mr. Milich Dr. Schönung	Collini-Center 68161 Mannheim	0621-293-5119	-
Wastewater Treatment Plant Grünstadt *(Stadtwerke Grünstadt GmbH)*	Mr. Schüler	Max-Planck-Str. 12 67269 Grünstadt	06359-954250	-
German Environmental Agency *(Fachbereich Baurecht und Umweltschutz)*	Mr. Krah	Collini-Center 68161 Mannheim	0621-293-7035	0621-293-7422 („Umwelt-telefon“)
Non DoD Resources: IBL Umwelt- und Biotechnik GmbH	Mr. Helfrich	Lagerhausstr. 24 67061 Ludwigs-hafen a. Rh.	0621-56105-16	0171-7107395